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(54) FUNGICIDAL COMPOSITIONS

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See application file for complete search history.

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(57) ABSTRACT

The present invention provides a composition comprising a combination of components A) and B), wherein component A) is a compound of formula (I) and the component (B) is a further fungicide, insecticide or herbicide.

16 Claims, No Drawings

RELATED APPLICATION INFORMATION

This application is a 371 of International Application No. 5 PCT/CN2012/073665, filed 9 Apr. 2012, which claims priority to International Application No. PCT/CN2011/084016, filed 14 Dec. 2011, the contents of which are incorporated herein by reference.

The present invention relates to novel fungicidal compositions which comprise fungicidally active pyridylamidine compounds for the treatment of phytopathogenic diseases of useful plants, especially phytopathogenic fungi, and to a method of controlling phytopathogenic diseases on useful

Certain phenylamidine derivatives are described in WO2008/101682 as microbicidally active ingredients in pesticides.

The present invention provides a composition comprising a A) is a compound of formula (I)

wherein

 R_1 and R_2 are each independently selected from hydrogen, $C_1\text{-}C_4\,alkyl, C_3\text{-}C_4\,alkenyl, C_3\text{-}C_4\,alkynyl, (R_{10}) carbonyl\,and$ (R₁₀)oxycarbonyl;

or R_1 and R_2 together with the nitrogen atom to which they 35 are attached form a 5- or 6 membered cyclic group which may be saturated or unsaturated and may contain a further heteroatom selected from S or O;

R₃ represents hydrogen, halogen, cyano, nitro, mercapto, hydroxy, $-C(=S)NH_2$, $-SF_5$, C_1-C_6 alkyl, C_1-C_6 40 haloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, $\rm C_2\text{-}C_6$ haloalkynyl, $\rm C_1\text{-}C_6$ alkoxy, $\rm C_1\text{-}C_6$ haloalkoxy, $\rm C_3\text{-}C_6$ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆ alkyl)amino, a 5-membered heterocycle containing 1-4 nitrogen atoms, piperidino, morpholino, thiomorpholino, formyl, hydroxy- 45 carbonyl, C2-C7 alkoxycarbonyl, C2-C7 haloalkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ haloalkenyloxycarbonyl, C2-C7 alkylcarbonyl, C2-C7 haloalkylcarbonyl, C1-C6 alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ $haloalkylthio, C_1\text{-}C_6\,haloalkylsulfinyl, C_1\text{-}C_6\,haloalkylsulfo-50$ nyl, C1-C6 hydroxyalkyl, phenyl or benzyl wherein the phenyl and benzyl are optionally substituted by one or more groups independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, amino, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ 55 alkyl
thio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl;

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄alkyl, C₁-C₄ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₄ alkenyl, C2-C4 alkynyl, C1-C4 alkoxy, C1-C4 haloalkoxy, C1-C4 alkylthio, C₁-C₄ alkylsulfinyl, C₁-C₄ alkylsulfonyl, methy- 60 lamino and dimethylamino;

 C_2 - C_{12} alkenyl, C2-C12alkenylsulfonyl, phenylsulfonyl or benzylsulfonyl mono- to polysubstituted by substituents independently

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selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, C2-C7alkylcarbonyl, C₂-C₇haloalkylcarbonyl, C_1 - C_6 alkyl, C₁-C₆haloalkyl, C_1 - C_6 alkoxy, C₁-C₆haloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

 R_5 is formyl, C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, C_3 - C_{12} alkynylcarbonyl, C_4 - C_{12} cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, C_2 - C_{12} alkoxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C_4 - C_{12} alkynyloxycarbonyl, C₄-C₁₂ cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl, or is C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, C₃-C₁₂ alkynylcarbonyl, C₄-C₁₂ cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, C_2 - C_{12} alkoxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C₄-C₁₂ cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ alkoxy; or

 R_5 is $(R_{51})(R_{52})(R_{53})Si$, $(R_{51})(R_{52})(R_{53})Si$ — $(C_1$ $\text{combination of components A) and B), wherein component} \quad {}^{20}\text{C}_{12}\text{alkyl} \text{--}, \quad (R_{51})(R_{52})(R_{53})\text{Si---}(C_3\text{--}C_8\text{cycloalkyl})\text{--}, \quad (R_{54}O) \text{---}(R_{51})(R_{52})(R_{53})\text{Si----}(R_{52})(R_{53})\text{Si----}(R_{52})(R_{53})$ (R₅₅O)(R₅₆O)Si—, $(R_{54}O)(R_{55}O)(R_{56}O)Si-(C_1 C_{12}$ alkyl)- or $(R_{54}O)(R_{55}O)(R_{56}O)Si-(C_3-C_8cycloalkyl)-;$

> $\rm R_5$ is $\rm C_1\text{-}C_6$ alkyl-B—C $_1\text{-}C_{12}$ alkyl-, $\rm C_2\text{-}C_6$ alkenyl-B—C $_1\text{-}$ C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkenyl-, C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, C₂-C₆alkynyl, C₂-C₁₂alkenyl-, C₃-C₈cycloalkyl-N—C₂C₁₂alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, phenyl-B—C₂C₁₂alkenyl-, C₁-C₆alkyl-B—C₂-C₁₂alkynyl-, C₂-C₆alkenyl- $B-C_2-C_{12}$ alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, benzyl-B—C₂- C_3 - C_8 cycloalkyl-B— C_2 - C_{12} alkynyl-, C_{12} alkynyl-, phenyl-B— C_2 - C_{12} alkynyl-, C_1 - C_6 alkyl-B-C₃-C₈cycloalkyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B-C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl- or phenyl-B-C₃-C₁₂cycloalkyl-, wherein the group B is selected from SO_2 —or — SO_2 — $N(R_{62})$ —; or

C₁₂alkyl-, C_3 - C_8 cycloalkyl-B— C_1 - C_{12} alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C_2 -C₁₂alkenyl-, C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C₂-C₆alkynyl-B—C₂-C₁₂alkenyl-, C₃-C₈cycloalkyl-B—C₂-C₁₂alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, phenyl-B—C C_{12} alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C_2 - C_6 alkenyl- $B-C_2-C_{12}$ alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, $\begin{array}{lll} C_3\text{-}C_8\text{cycloalkyl-B--}C_2\text{-}C_{12}\text{alkynyl-}, & \text{benzyl-B--}C_2\text{-}\\ C_{12}\text{alkynyl-}, & \text{phenyl-B--}C_2\text{-}C_{12}\text{alkynyl-}, & C_1\text{-}C_6\text{alkyl-B--}\\ C_3\text{-}C_8\text{cycloalkyl-}, & C_2\text{-}C_6\text{alkenyl-B--}C_3\text{-}C_8\text{cycloalkyl-}, \end{array}$ C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl-, phenyl-B-C₃-C₁₂cycloalkyl-, all of which, in turn, are mono- to poly-substituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, $\begin{array}{l} C_1\text{-}C_6 \text{ haloalkyl}, C_1\text{-}C_6 \text{ alkoxy, formyl}, C_2\text{-}C_6 \text{ alkylcarbonyl}, \\ C_1\text{-}C_6 \text{ alkylthio}, C_1\text{-}C_6 \text{ alkylsulfinyl and } C_1\text{-}C_6 \text{ alkylsulfonyl}; \end{array}$

 R_5 is A-, A-(C₁-C₆alkyl)-, A-O—(C₁-C₆alkyl)-, A-(C₃- C_2 - C_{12} alkynyl, C_1 - C_{12} alkylsulfonyl, 65 C_6 alkenyl)-, A-O—(C_4 - C_6 alkenyl)-, A-(C_3 - C_6 -alkynyl)-, A-O—(C₄-C₆alkynyl)-, A-(C₃-C₈cycloalkyl)- or A-O—(C₃-C₈cycloalkyl)-;

wherein A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to contain 5—O—O—, —S—S— and —O—S— fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

A1) by substituents independently selected from the group consisting of

A2) by substituents independently selected form the group consisting of $(R_{14})S(\bigcirc O)(\bigcirc NR_{13})$ —, $(R_{14})(R_{15})S(\bigcirc O)$ 25 $\bigcirc N$ —; $-Si(R_{51})(R_{52})(R_{53})$, $-NR_{57}R_{58}$, $-C(\bigcirc O)$ $NR_{57}R_{58}$, $C(\bigcirc S)NR_{57}R_{58}$, $HC(\bigcirc NOR_{59})$ —, $(C_1\text{-}C_6\text{alkyl})$ $C(\bigcirc NOR_{59})$ —, $(C_1\text{-}C_6\text{alkyl})$ $C(\bigcirc NOR_{59})$ —, $(C_1\text{-}C_6\text{alkyl})$ $C(\bigcirc NOR_{59})$ —, $(C_1\text{-}C_6\text{alkyl})$ $C(\bigcirc NOR_{59})$ $C_1\text{-}C_6\text{alkyl}$, $(C_1\text{-}C_6\text{alkyl})$ aminosulfonyl and 30 $C(C_1\text{-}C_6\text{alkyl})$ $C(C_1\text{-}C_6\text{-}C_6\text{alkyl})$ $C(C_1\text{-}C_6$

A3) by substituents independently selected from the group consisting of

formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, C_4 - C_9 35 cycloalkylcarbonyl, C_4 - C_9 halocycloalkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_2 - C_7 alkenyloxycarbonyl, C_3 - C_7 alkynyloxycarbonyl, C_4 - C_9 cycloalkoxycarbonyl, C_2 - C_7 alkylthiocarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy; or

A4) by substituents independently selected from the group consisting of hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 45 alkynyl, C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl, C_2 - C_4 haloalkenyl, cyano, benzyl, phenyl, $=(C(R^{36'})_2, =N-OH, =N-O-C_1$ - C_4 -alkyl, $=N-O-C_3$ - C_4 alkenyl, $=N-O-C_3$ - C_4 alkenyl, $=N-O-C_3$ - C_4 haloalkyl, $=N-O-C_3$ - C_4 haloalkenyl, =N-O-benzyl and 50 =N-O-phenyl, wherein the =N-O-benzyl and =N-O-phenyl are optionally substituted by one or more group selected from the group consisting of halogen, methyl, halomethyl; or

 R_5 is $-N = C(R_8)(R_9)$; or

 $\rm R_5$ is a $\rm C_8\text{-}C_{11}$ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, C₁-C₆ alkyl, —CH(CH₃)—CH₂—60 CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH(CH₃), —CH (CH₃)—CH(CH₃), CH (CH₃)—CH(CH₃), CH₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₇-alkylcarbonyl, 65 C₂-C₇-alkoxycarbonyl, C₄-C₇-alkylcarbonyl, C₄-C₇-alkynyloxycarbonyl, C₁-C₆ alkylsulfinyl,

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 C_1 - C_6 alkylsulfonyl, \Longrightarrow O, \Longrightarrow C(\Longrightarrow O)NH₂, \Longrightarrow C(\Longrightarrow O)NH (CH₃), \Longrightarrow C(\Longrightarrow C)NH₂;

R₆ is selected from hydrogen and SH;

 R_7 is hydrogen, halogen or C_1 - C_4 alkyl;

 R_8 and R_9 , independently from each other, are hydrogen, halogen, cyano, C_1 - C_{12} alkyl, C_2 - C_{12} alkenyl, C_2 - C_{12} alkynyl, C_1 - C_{12} alkoxy, formyl, C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, carboxy, C_2 - C_{12} alkoxycarbonyl and C_4 - C_{12} alkenyloxycarbonyl, or C_1 - C_{12} alkyl, C_2 - C_{12} alkenyl, C_3 - C_{12} alkenyl, C_2 - C_{12} alkoxy, C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, C_2 - C_{12} alkoxycarbonyl and C_4 - C_{12} alkenyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or R_8 and R_9 together from a C_2 - C_8 alkylene bridge which may optionally be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C_1 - C_6 alkyl and C_1 - C_6 haloalkyl; or R_8 and R_9 , independently from each other, are the groups A-, A-O— or A-(C_1 - C_6 alkyl)-;

 R_{10} is H, C_1 - C_4 alkyl, C_2 - C_4 alkenyl or C_1 - C_4 haloalkyl; R_{13} is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 alkenyl, C_3 - C_6 haloalkenyl, C_3 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 halocycloalkyl, phenyl and benzyl, or is phenyl and benzyl mono- to polysubstituted by halogen, cyano, hydroxy,

 C_1 - C_6 alkyl, C_1 - C_6 haloalkyl or C_1 - C_6 alkoxy;

 R_{14} and R_{15} , independently of each other, are C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_3 - C_8 halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, benzyl or phenyl, or benzyl or phenyl independently of each other, substituted by substituents selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy;

 $R_{51},\ R_{52},\ R_{63},$ independently of each other, are halogen, cyano, $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6$ alkenyl, $C_3\text{-}C_8$ cycloalkyl, $C_5\text{-}C_8$ cycloalkenyl, $C_2\text{-}C_6$ alkynyl, $C_1\text{-}C_6$ alkoxy, benzyl or phenyl; $R_{54},\ R_{55},\ R_{66},$ independently of each other, are $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ alkynyl, benzyl or phenyl:

 R_{57} and R_{68} , independently of each other, are hydrogen, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ haloalkenyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ haloalkenyl, $C_3\text{-}C_6$ alkynyl, $C_3\text{-}C_8$ cycloalkyl, $C_3\text{-}C_8$ halocycloalkyl, phenyl or benzyl, where phenyl or benzyl for their part may be mono- to polysubstituted on the phenyl ring by substituents independently selected from the group consisting of halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl and $C_1\text{-}C_6$ alkoxy, or R_{57} and R_{58} together with their interconnecting nitrogen atom are aziridino, azetidino, pyrazolino, pyrazolidino, pyrrolidino, pyrrolidino, imidazolino, imidazolidino, triazolino, tetrazolino, piperazino, piperidino, morpholino, thiomorpholino, each of which, in turn, may be mono- or polysubstituted by substituents selected from the group consisting of methyl, halogen, cyano;

 R_{59} is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 alkenyl, C_3 - C_6 haloalkenyl, C_3 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 halocycloalkyl, benzyl and phenyl, and benzyl and phenyl mono- to polysubstituted by halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl or C_1 - C_6 alkoxy;

 R_{60} is hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_3 - C_8 halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, benzyl or phenyl, or benzyl or phenyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy;

 R_{62} is hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_3 - C_8 halocycloalkyl, C_3 - C_6 alkenyl, C_3 - C_6 alky-

nyl, benzyl or phenyl, or benzyl or phenyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy;

each $R^{36'}$ is independently selected from hydrogen, halo- 5 gen and C_1 - C_4 alkyl;

and agronomically acceptable salts/metallic complexes/metalloidic complexes/isomers/structural isomers/stereo-isomers/diastereoisomers/enantiomers/tautomers/N-oxides of those compounds;

and

component B) is a strobilurin fungicide, a sterol biosynthesis inhibitor fungicide, a triazole fungicide, or a pro-triazole fungicide, or a DMI fungicide, or a SDHI fungicide, or a compound selected from the group consisting of Chlorotha- 15 lonil, Fludioxonil, Cyprodinil, Mandipropamid, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, Tefluthrin, Mefenoxam, Orocymedone, Thiamethoxam, Lambda-cyhalothrin, Gammacyhalothrin. Profenofos. Lufenuron, Diflubenzuron, 20 Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzuron, SulcotrioneAcephat, Glyphosate, Glufosinate. Mesotrione. Bicyclopyrone, Tembotrione. Sulcotrione, Sulcotrione, Auxins, Trinexapac-ethyl, Pro- 25 hexadione-Ca, Paclobutrazol, Acibenzolar-S-methyl, Methyl-Jasmonate, Cis-Jasmone, Manganese, Cyflufenamid, Tebufloquin and Copper.

A further aspect of present invention provides a composition comprising a combination of components A) and B) in a 30 synergistically effective ratio between the component A) and component B).

A further aspect of the present invention provides a method of controlling phytopathogenic diseases on useful plants or on propagation material thereof, which comprises applying to 35 the useful plants, the locus thereof or propagation material thereof a combination of components A) and B) in as synergistically effective amount and ratio between the component A) and component B).

A further aspect of the present invention relates to novel 40 compounds according to formula (I).

A further aspect of the present invention relates to novel intermediates to provide compounds according to formula (I).

Preferably, component B is a strobilurin fungicide, a sterol biosynthesis inhibitor fungicide, a triazole fungicide, a protriazole fungicide, a DMI fungicide, a SDHI fungicide, or is a compound selected from Chlorothalonil, Fludioxonil, Cyprodinil, Mandipropamid, Mefenoxam, Orocymedone, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, Tefluthrin, 50 Thiamethoxam, Lambda-cyhalothrin, Gamma-cyhalothrin, Profenofos, Lufenuron, Diflubenzuron, Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzuron, SulcotrioneAcephat, Glyphosate, Glufosinate, Mesotrione, 55 Bicyclopyrone, Tembotrione, Sulcotrione, Auxins, Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol, Acibenzolar-Smethyl, Methyl-Jasmonate, Cis-Jasmone, Manganese and Copper.

Preferably, component B is a strobilurin fungicide, a sterol 60 biosynthesis inhibitor fungicide, a triazole fungicide, a protriazole fungicide, a DMI fungicide, a SDHI fungicide, or is a compound selected from the group consisting of Chlorothalonil, Fludioxonil, Cyprodinil, Mandipropamid, Mefenoxam, Orocymedone, Fluazinam, Carbendazim, Thiamethoxam, 65 Glyphosate, 2,4-D, Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol and cis-Jasmone.

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In one group of mixtures, component B is a strobilurin fungicide.

In another group of mixtures, component B is a Sterol biosynthesis inhibitor

In another group of mixtures, component B is a triazole fungicide or a protriazole compound.

In another group of mixtures, component B is a DMI funcicide.

In another group of mixtures, component B is a SDHI 10 fungicide.

In another group of mixtures, component B is a compound of formula (III)

$$R^{71}$$
 OH

wherein R^{70'} is phenyl, which is unsubstituted or substituted with 1, 2 or 3 substituents selected from halogen, haloalkyl, haloalkoxy and cyano, and;

R^{71'} is phenyl, which is unsubstituted or substituted with 1, 2 or 3 substituents selected from halogen, haloalkyl, haloalkoxy and cyano.

Preferred compounds of formula (III) are (S)-[3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol and 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol

In another group of mixtures, component B is selected from the group consisting of Chlorothalonil, Fludioxonil, Cyprodinil, Mandipropamid, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, Tefluthrin, Mefenoxam, Orocymedone, Thiamethoxam, Lambda-cyhalothrin, Gamma-cyhalothrin, Profenofos, Lufenuron, Diflubenzuron, Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzuron, SulcotrioneAcephat, Glyphosate, Glufosinate, Mesotrione, Bicyclopyrone, Tembotrione, Sulcotrione, Auxins (e.g. 2.4-D MCPA), Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol, Acibenzolar-S-methyl, Methyl-Jasmonate, Cis-Jasmone, Manganese and Copper, preferably from the group consisting of Chlorothalonil, Fludioxonil, Cyprodinil, Fenpropidin, Mandipropamid, Mefenoxam, Orocymedone, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, Tefluthrin, Thiamethoxam, Lambda-cyhalothrin, Gamma-cyhalothrin, Profenofos, Lufenuron, Diflubenzuron, Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzuron, SulcotrioneAcephat, Glyphosate, Glufosinate, Mesotrione, Bicyclopyrone, Tembotrione, Sulcotrione, Auxins, Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol, Acibenzolar-Smethyl, Methyl-Jasmonate, Cis-Jasmone, Manganese and Copper, more preferably from the group consisting of Chlorothalonil, Fludioxonil, Cyprodinil, Fenpropidin, Mandipropamid, Mefenoxam, Orocymedone, Fluazinam, Carbendazim, Thiamethoxam, Glyphosate, 2,4-D, Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol and cis-Jasmone.

In a preferred embodiment the component B) is a compound selected from Chlorothalonil, Fludioxonil, Cyprodinil, Fenpropidin, Mandipropamid, Fenpropimorph, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, Tefluthrin, Mefenoxam, Orocymedone, Thiamethoxam, Lambda-cyhalothrin, Gammacyhalothrin, Profenofos, Lufenuron, Diflubenzuron, Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzuron, Acephat, Glyphosate, Glufosinate, Mesotrione, Bicyclopyrone, Tembotrione, Sulcotrione, 2,4-D. MCPA, Trinexapac-ethyl, Prohexadione-Ca, Paclobutrazol, Acibenzolar-S-methyl, Methyl-Jasmonate, Cis-Jasmone, Manganese, Copper, Coumoxystrobin, Dicloaminostrobin, Flufenoxystrobin, Pyrametostrobin, Pyraoxystrobin, Trifloxystrobin, Azoxystrobin, Pyraclostrobin, Picoxystrobin, Jiaxiangjunzhi, Enoxastrobin, Triclopyricarb, the compound of formula II, Cyproconazole, Difenoconazole, Metconazole, Propiconazole, Epoxiconazole, Tebuconazole, Flutriafol, Ipconazole, prothioconazole, (S)-[3-(4-Chloro-2-fluoro-20) phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3yl-methanol, 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluorophenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol,

Pyrisoxazole, 3-(Difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-1H-pyrazole-4-carboxamide, N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, Isopyrazam, Sedaxane, Boscalid, Fluxapyroxad, Penthiopyrad, Penflufen, Bixafen and Fluopyram.

The term strobilurin fungicide is well known to the person skilled in the art, and includes, for example, Coumoxystrobin, Dicloaminostrobin, Flufenoxystrobin, Pyrametostrobin, Pyracoxystrobin, Trifloxystrobin, Azoxystrobin, Pyraclostrobin, Picoxystrobin, Jiaxiangjunzhi, Enoxastrobin, Triclopyricarb, Fluoxastrobin, Dimoxystrobin, Fenaminostrobin and the compound of formula (II). Preferred strobilurin fungicides are Azoxystrobin, Pyraclostrobin and Picoxystrobin. Even more preferred strobilurin fungicides are Azoxystrobin and Pyraclostrobin.

The term sterol biosynthesis inhibitor fungicide is well 55 known to the person skilled in the art, and includes, for example, Spiroxamine, Fenpropimorph, Tridemorph, Fenpropidin, Fenhexamid, Terbinafine, Naftifine

The term triazole fungicide is well known to the person skilled in the art, and includes, for example, Cyproconazole, 60 Difenoconazole, Metconazole, Propiconazole, Epoxiconazole, Tebuconazole, Flutriafol, Ipconazole and 1-(2-chlorophenyl)-2-(1-chlorocycloprop-1-yl)-3-(1,2,4-triazol-1-yl) propan-2-ol [CAS number 120983-64-4]. Preferred triazole fungicide compounds are Cyproconazole, Difenoconazole, 65 Metconazole and Tebuconazole. Even more preferred is Cyproconazole.

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The term pro-triazole fungicide is well known to the person skilled in the art and includes, for example, prothioconazole.

The term DMI fungicides is well known to the person skilled in the art and includes, for example, (S)-[3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol, 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)isoxazol-4-yl]-pyridin-3-yl-methanol and Pyrisoxazole. Preferred DMI fungicides are (S)-[3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol and 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol.

The term SDHI fungicide is well known to the person skilled in the art and includes, for example, N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, Isopyrazam, Sedaxane, Boscalid Fluxapyroxad, Penthiopyrad, Penflufen, Bixafen, Fluopyram, 3-(Difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl) ethyl]-1H-pyrazole-4-carboxamide, Preferred SDHI fungicides are N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, Isopyrazam, 3-(Difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-1H-pyrazole-4-carboxamide and Fluxapyroxad.

The term Auxins is well known to the person skilled in the art and includes, for example, 2,4-D, MCPA and Dicamba

In a further preferred embodiment the component B is Chlorothalonil. In a further preferred embodiment the component B is Fludioxonil. In a further preferred embodiment the component B is Cyprodinil. In a further preferred embodiment the component B is Fenpropidin. In a further preferred embodiment the component B is Mandipropamid. In a further preferred embodiment the component B is Fluazinam. In a further preferred embodiment the component B is Procymedone. In a further preferred embodiment the component B is Carbendazim. In a further preferred embodiment the component B is Abamectin. In a further preferred embodiment the 40 component B is Clothianidin. In a further preferred embodiment the component B is Emamectin benzoate. In a further preferred embodiment the component B is Imidacloprid. In a further preferred embodiment the component B is Tefluthrin. In a further preferred embodiment the component B is Mefenoxam. In a further preferred embodiment the component B is Orocymedone. In a further preferred embodiment the component B is Thiamethoxam. In a further preferred embodiment the component B is Lambda-cyhalothrin. In a further preferred embodiment the component B is Gamma-50 cyhalothrin. In a further preferred embodiment the component B is Profenofos. In a further preferred embodiment the component B is Lufenuron. In a further preferred embodiment the component B is Diflubenzuron. In a further preferred embodiment the component B is Cypermethrin. In a further preferred embodiment the component B is Novaluron. In a further preferred embodiment the component B is Bifenthrin. In a further preferred embodiment the component B is Methomyl. In a further preferred embodiment the component B is Chlopyrifos. In a further preferred embodiment the component B is Methamidophos. In a further preferred embodiment the component B is Endosulfan. In a further preferred embodiment the component B is Betacyfluthrin. In a further preferred embodiment the component B is Triflumuron. In a further preferred embodiment the component B is Teflubenzuron. In a further preferred embodiment the component B is Acephat. In a further preferred embodiment the component B is Glyphosate. In a further preferred embodi-

ment the component B is Glufosinate. In a further preferred embodiment the component B is Mesotrione. In a further preferred embodiment the component B is Bicyclopyrone. In a further preferred embodiment the component B is Tembotrione. In a further preferred embodiment the component B is 5 Sulcotrione. In a further preferred embodiment the component B is 2,4-D. In a further preferred embodiment the component B is MCPA. In a further preferred embodiment the component B is Trinexapac-ethyl. In a further preferred embodiment the component B is Prohexadione-Ca. In a fur- 10 ther preferred embodiment the component B is Paclobutrazol. In a further preferred embodiment the component B is Acibenzolar-5-methyl. In a further preferred embodiment the component B is Methyl-Jasmonate. In a further preferred embodiment the component B is Cis-Jasmone. In a further 15 preferred embodiment the component B is Manganese. In a further preferred embodiment the component B is Copper. In a further preferred embodiment the component B is Cyflufenamid. In a further preferred embodiment the component B is Tebufloquin. In a further preferred embodiment the compo- 20 nent B is Coumoxystrobin. In a further preferred embodiment the component B is Dicloaminostrobin. In a further preferred embodiment the component B is Flufenoxystrobin. In a further preferred embodiment the component B is Pyrametostrobin. In a further preferred embodiment the component B 25 is Pyraoxystrobin. In a further preferred embodiment the component B is Trifloxystrobin. In a further preferred embodiment the component B is Azoxystrobin. In a further preferred embodiment the component B is Pyraclostrobin. In a further preferred embodiment the component B is Picox- 30 ystrobin. In a further preferred embodiment the component B is Jiaxiangjunzhi. In a further preferred embodiment the component B is Enoxastrobin. In a further preferred embodiment the component B is Triclopyricarb. In a further preferred embodiment the component B is Fluoxastrobin. In a further 35 preferred embodiment the component B is Dimoxystrobin. In a further preferred embodiment the component B is Fenaminostrobin In a further preferred embodiment the component B is the compound of formula II. In a further preferred embodiment the component B is Cyproconazole. In a further pre- 40 ferred embodiment the component B is Difenoconazole. In a further preferred embodiment the component B is Metconazole. In a further preferred embodiment the component B is Propiconazole. In a further preferred embodiment the component B is Epoxiconazole. In a further preferred embodi- 45 ment the component B is Tebuconazole. In a further preferred embodiment the component B is Flutriafol. In a further preferred embodiment the component B is Ipconazole. In a further preferred embodiment the component B is 1-(2-chlorophenyl)-2-(1-chlorocycloprop-1-yl)-3-(1,2,4-triazol-1-yl) 50 propan-2-ol [CAS number 120983-64-4]. In a further preferred embodiment the component B is prothioconazole. In a further preferred embodiment the component B is (S)-[3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)isoxembodiment the component B is 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-ylmethanol. In a further preferred embodiment the component B is Pyrisoxazole. In a further preferred embodiment the component B is 3-(difluoromethyl)-N-methoxy-1-methyl-N- 60 [1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-1H-Pyrazole-4carboxamide. In a further preferred embodiment the component B is N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1Hpyrazole-4-carboxamide. In a further preferred embodiment 65 the component B is Isopyrazam. In a further preferred embodiment the component B is Sedaxane. In a further pre10

ferred embodiment the component B is Boscalid, In a further preferred embodiment the component B is Fluxapyroxad. In a further preferred embodiment the component B is Penthiopyrad. In a further preferred embodiment the component B is Penflufen. In a further preferred embodiment the component B is Bixafen. In a further preferred embodiment the component B is Fluopyram. In a further preferred embodiment the component B is 1-(2-chlorophenyl)-2-(1-chlorocycloprop-1-yl)-3-(1,2,4-triazol-1-yl)propan-2-ol.

The active ingredient mixture according to the invention may bring about the additive enhancement of the spectrum of action with respect to the phytopathogen to be controlled that may in principle be expected but achieves a synergistic effect which extends the range of action of the component (A) and of the component (B) in two ways. Firstly, the rates of application of the component (A) and of the component (B) may be lowered whilst the action remains equally good. Secondly, the active ingredient mixture may still achieve a high degree of phytopathogen control even where the two individual components have become totally ineffective in such a low application rate range. This allows, on the one hand, a substantial broadening of the spectrum of phytopathogens that can be controlled and, on the other hand, increased safety in use.

However, besides the actual synergistic action with respect to fungicidal activity, the pesticidal compositions according to the invention may also have further surprising advantageous properties which can also be described, in a wider sense, as synergistic activity. Examples of such advantageous properties that may be mentioned are: a broadening of the spectrum of fungicidal activity to other phytopathogens, for example to resistant strains; a reduction in the rate of application of the active ingredients; synergistic activity against animal pests, such as insects or representatives of the order Acarina; a broadening of the spectrum of pesticidal activity to other animal pests, for example to resistant animal pests; adequate pest control with the aid of the compositions according to the invention, even at a rate of application at which the individual compounds are totally ineffective; advantageous behaviour during formulation and/or upon application, for example upon grinding, sieving, emulsifying, dissolving or dispensing; increased storage stability; improved stability to light; more advantageous degradability; improved toxicological and/or ecotoxicological behaviour; improved characteristics of the useful plants including: emergence, crop yields, more developed root system, tillering increase, increase in plant height, bigger leaf blade, less dead basal leaves, stronger tillers, greener leaf colour, less fertilizers needed, less seeds needed, more productive tillers, earlier flowering, early grain maturity, less plant verse (lodging), increased shoot growth, improved plant vigor, and early germination; or any other advantages familiar to a person skilled

Substituents at a nitrogen atom are always different from azol-4-yl]-pyridin-3-yl-methanol. In a further preferred 55 halogen. A hydroxy, mercapto or amino substituent is not to be placed on an α -carbon relative to a heteroatom of a core

> The alkyl groups occurring in the definitions of the substituents can be straight-chain or branched and are, for example, methyl, ethyl, n-propyl, isopropyl, n-butyl, secbutyl, iso-butyl, tert-butyl, pentyl, hexyl, heptyl and octyl and their branched isomers. Alkoxy, alkenyl and alkynyl radicals are derived from the alkyl radicals mentioned. The alkenyl and alkynyl groups can be mono- or polyunsaturated.

> The cycloalkyl groups occurring in the definitions of the substituents are, for example, cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl.

Halogen is generally fluorine, chlorine, bromine or iodine, preferably fluorine, bromine or chlorine. This also applies, correspondingly, to halogen in combination with other meanings, such as haloalkyl or haloalkoxy.

Haloalkyl groups preferably have a chain length of from 1 5 to 6 carbon atoms. Haloalkyl is, for example, fluoromethyl, difluoromethyl, trifluoromethyl, chloromethyl, dichloromethyl, trichloromethyl, 2,2,2-trifluoroethyl, 2-fluoroethyl, 2-chloroethyl, pentafluoroethyl, 1,1-difluoro-2,2,2-trichloroethyl, 2,2,3,3-tetrafluoroethyl, 2,2,2-trichloroethyl, 5,5,5-tri-10 fluoropentan-1-yl, 5,5-difluoro-pentan-1-yl, 6,6,6-trifluorohexan-1-yl, 6,6-difluoro-hexan-1-yl, heptafluoro-prop-2-yl and 2-fluoro-prop-2-yl; preferably trichloromethyl, difluorochloromethyl, difluoromethyl, trifluoromethyl and dichlorofluoromethyl.

Suitable haloalkenyl groups are alkenyl groups which are mono- di- or trisubstituted by halogen, halogen being fluorine, chlorine, bromine and iodine and in particular fluorine and chlorine, for example 2,2-difluoro-1-methylvinyl, 3-fluoropropenyl, 3-chloropropenyl, 3-bromopropenyl, 2,3, 20 3-trifluoropropenyl, 2,3,3-trichloropropenyl and 4,4,4-trifluorobut-2-en-1-yl.

Suitable haloalkynyl groups are, for example, alkynyl groups which are mono- or polysubstituted by halogen, halogen being bromine, iodine and in particular fluorine and chlorine, for example 3-fluoropropynyl, 3-chloropropynyl, 3-bromopropynyl, 3,3,3-trifluoropropynyl and 4,4,4-trifluorobut-2-yn-1-yl.

Alkoxy is, for example, methoxy, ethoxy, propoxy, i-propoxy, n-butoxy, isobutoxy, sec-butoxy and tert-butoxy; preferably methoxy and ethoxy. Halogenalkoxy is, for example, fluoromethoxy, difluoromethoxy, trifluoromethoxy, 2,2,2-trifluoroethoxy, 1,1,2,2-tetrafluoroethoxy, 2-fluoroethoxy, 2-chloroethoxy, 2,2-difluoromethoxy, and 2,2,2-trichloroethoxy; preferably difluoromethoxy, 2-chloroethoxy and trif- 35 luoromethoxy.

Alkoxycarbonyl is, for example, methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, isopropoxycarbonyl, n-butoxycarbonyl, isobutoxycarbonyl, sec-butoxycarbonyl or tert-butoxycarbonyl; preferably methoxycarbonyl or 40 ethoxycarbonyl. Haloalkoxy groups preferably have a chain length of from 1 to 6 carbon atoms. Haloalkoxy is, for example, fluoromethoxy, difluoromethoxy, trifluoromethoxy, 2,2,2-trifluoroethoxy, 1,1,2,2-tetrafluoroethoxy, 2-fluoroethoxy, 2-chloroethoxy, 2,2-difluoromethoxy and 2,2,2-trichloroethoxy; preferably difluoromethoxy, 2-chloroethoxy and trifluoromethoxy. Alkylthio groups preferably have a chain length of from 1 to 6 carbon atoms.

Alkoxyalkyl is, for example, methoxymethyl, methoxyethyl, ethoxymethyl, ethoxyethyl, n-propoxymethyl, n-propoxyethyl, isopropoxymethyl or isopropoxyethyl.

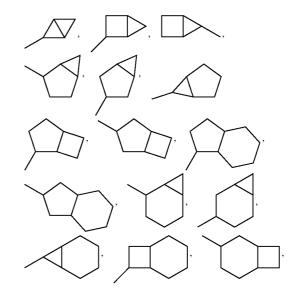
Alkylthio is, for example, methylthio, ethylthio, propylthio, isopropylthio, n-butylthio, isobutylthio, sec-butylthio or tert-butylthio, preferably methylthio and ethylthio. Alkylsulfinyl is, for example, methylsulfinyl, ethylsulfinyl, propylsulfinyl, isopropylsulfinyl, n-butylsulfinyl, isobutylsulfinyl, sec-butylsulfinyl. Alkylsulfonyl is, for example, methylsulfinyl and ethylsulfinyl. Alkylsulfonyl is, for example, methylsulfonyl, ethylsulfonyl, propylsulfonyl, isopropylsulfonyl, n-butylsulfonyl, isobutylsulfonyl, sec-butylsulfonyl or tert-butylsulfonyl; preferably methylsulfonyl or ethylsulfonyl.

C₂-C₆ alkylcarbonyl is, for example, methylcarbonyl, ethylcarbonyl, propylcarbonyl, isopropylcarbonyl, n-butylcarbonyl, isobutylcarbonyl, sec-butylcarbonyl, tert-butylcarbonyl or n-pentylcarbonyl and their branched isomers, 65 preferably methylcarbonyl and ethylcarbonyl. Haloalkylcarbonyl radicals are derived from the alkyl radicals mentioned.

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In the context of the present invention "mono- to polysubstituted" in the definition of the substituents, means typically, depending on the chemical structure of the substituents, monosubstituted to seven-times substituted, preferably monosubstituted to five-times substituted, more preferably mono-, double- or triple-substituted.

According to the present invention, a three- to ten-membered monocyclic or fused bicyclic ring system which may be aromatic, partially saturated or fully saturated is, depending of the number of ring members, for example, selected from the group consisting of



cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, where said cycloalkylgroups for their part may be preferably unsubstituted or substituted by C₁-C₆alkyl or halogen, or is phenyl, benzyl, naphthyl or the following heterocyclic groups: pyrrolyl; pyridyl; pyrazolyl; pyrimidyl; pyrazinyl; imidazolyl; thiadiazolyl; quinazolinyl; furyl; oxadiazolyl; indolizinyl; pyranyl; isobenzofuranyl; thienyl; naphthyridinyl; (1-methyl-1H-pyrazol-3-yl)-; (1-ethyl-1H-pyrazol-3-yl)-; (1-propyl-1H-pyrazol-3-yl)-; (1H-pyrazol-3-yl)-; (1,5-dimethyl-1H-pyrazol-3-yl)-; (4-chloro-1-methyl-1H-pyrazol-3-yl)-; (1H-pyrazol-1-yl)-; (3-methyl-1H-pyrazol-1-yl)-; (3,5-dimethyl-1H-pyrazol-1-yl)-; (3-isoxazolyl)-; (5-methyl-3-isoxazolyl)-; (3-methyl-5-isoxazolyl)-; (5-isoxazolyl)-; (1H-pyrrol-2-yl)-; (1-methyl-1H-pyrrol-2-yl)-; (1H-pyrrol-1-yl)-; (1-methyl-1H-pyrrol-3-yl)-; (2-furanyl)-; (5-methyl-2-furanyl)-; (3-furanyl)-; (5-methyl-2-thienyl)-; (2-thienyl)-; (3-thienyl)-; (1-methyl-1H-imidazol-2-yl)-; (1H-imidazol-2yl)-; (1-methyl-1H-imidazol-4-yl)-; (1-methyl-1H-imidazol-5-yl)-; (4-methyl-2-oxazolyl)-; (5-methyl-2-oxazolyl)-; (2-oxazolyl)-; (2-methyl-5-oxazolyl)-; (2-methyl-4-oxazolyl)-; (4-methyl-2-thiazolyl)-; (5-methyl-2-thiazolyl)-; (2-thiazolyl)-; (2-methyl-5-thiazolyl)-; (2-methyl-4-thiazolyl)-; (3-methyl-4-isothiazolyl)-; (3-methyl-5-isothiazolyl)-; (5-methyl-3-isothiazolyl)-; (1-methyl-1H-1,2,3-triazol-4-yl)-; (2-methyl-2H-1,2,3-triazol-4-yl)-; (4-methyl-2H-1,2,3-triazol-2-yl)-; (1-methyl-1H-1,2,4-triazol-3-yl)-; (1,5dimethyl-1H-1.2.4-triazol-3-yl)-: (3-methyl-1H-1,2,4-(5-methyl-1H-1,2,4-triazol-1-yl)-; triazol-1-yl)-; dimethyl-4H-1,2,4-triazol-3-yl)-; (4-methyl-4H-1,2,4triazol-3-yl)-; (4H-1,2,4-triazol-4-yl)-; (5-methyl-1,2,3oxadiazol-4-yl)-; (1,2,3-oxadiazol-4-yl)-; (3-methyl-1,2,4oxadiazol-5-yl)-; (5-methyl-1,2,4-oxadiazol-3-yl)-; (4-methyl-3-furazanyl)-; (3-furazanyl)-; (5-methyl-1,2,4-

oxadiazol-2-yl)-; (5-methyl-1,2,3-thiadiazol-4-yl)-; (1,2,3thiadiazol-4-yl)-; (3-methyl-1,2,4-thiadiazol-5-yl)-; (5-methyl-1,2,4-thiadiazol-3-yl)-; (4-methyl-1,2,5-thiadiazol-3yl)-; (5-methyl-1,3,4-thiadiazol-2-yl)-; (1-methyl-1Htetrazol-5-yl)-; (1H-tetrazol-5-yl)-; (5-methyl-1H-tetrazol-1-5 yl)-; (2-methyl-2H-tetrazol-5-yl)-; (2-ethyl-2H-tetrazol-5yl)-; (5-methyl-2H-tetrazol-2-yl)-; (2H-tetrazol-2-yl)-; (2-pyridyl)-; (6-methyl-2-pyridyl)-; (4-pyridyl)-; (3-pyridyl)-; (6-methyl-3-pyridazinyl)-; (5-methyl-3-pyridazinyl)-; nyl)-; (3-pyridazinyl)-; (4,6-dimethyl-2-pyrimidinyl)-; 10 (4-methyl-2-pyrimidinyl)-; (2-pyrimidinyl)-; (2-methyl-4pyrimidinyl)-; (2-chloro-4-pyrimidinyl)-; (2,6-dimethyl-4pyrimidinyl)-; (4-pyrimidinyl)-; (2-methyl-5-pyrimidinyl)-; (6-methyl-2-pyrazinyl)-; (2-pyrazinyl)-; (4,6-dimethyl-1,3, 5-triazin-2-yl)-; (4,6-dichloro-1,3,5-triazin-2-yl)-; (1,3,5-tri-15 azin-2-yl)-; (4-methyl-1,3,5-triazin-2-yl)-; (3-methyl-1,2,4triazin-5-yl)-; (3-methyl-1,2,4-triazin-6-yl)-;

-continued O
$$(R_{28})r$$
 $(R_{28})r$ and $(R_{28})r$,

wherein each R₂₆ is methyl, each R₂₇ and each R₂₈ are independently hydrogen, C_1 - C_3 alkyl, C_1 - C_3 alkoxy, C₁-C₃alkylthio or trifluoromethyl, X₄ is oxygen or sulfur and r=1, 2, 3 or 4.

There no free valency is indicated in those definitions, for example as in

in a case such as, for example,

at the bonding site indicated at the bottom left.

The following substituents definitions, including preferred 35 definitions, may be combined in any combination:

R₁ and R₂ are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl, C₃-C₄ alkynyl, (R₁₀)carbonyl and (R_{10}) oxycarbonyl;

or R_1 and R_2 together with the nitrogen atom to which they 40 are attached form a 5- or 6 membered cyclic group which may be saturated or unsaturated and may contain a further heteroatom selected from S or O.

Preferably, R₁ and R₂ are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl and C₃-C₄ alkynyl;

or R₁ and R₂ together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine.

More preferably, R₁ and R₂ are each independently selected from hydrogen or C₁-C₄ alkyl;

or R_1 and R_2 together with the nitrogen atom to which they 50 are attached form a pyrrolidine or piperidine.

Even more preferably, R_1 and R_2 are each independently selected from hydrogen or C₁-C₄ alkyl.

More preferably again, R_1 and R_2 are each C_1 - C_4 alkyl.

More favourably again, R₁ and R₂ are each independently 55 selected from methyl, ethyl and isopropyl.

Yet more favourably, R₁ is methyl and R₂ is selected from methyl, ethyl and isopropyl.

Yet more favourably still, R₁ is methyl and R₂ is selected from ethyl and isopropyl.

Most preferably, R_1 is methyl and R_2 is ethyl.

R₃ represents hydrogen, halogen, cyano, nitro, mercapto, hydroxy, $-C(=S)NH_2$, $-SF_5$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ 65 cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, a 5-membered heterocycle containing 1-4 nitrogen atoms,

piperidino, morpholino, thiomorpholino, formyl, hydroxycarbonyl, C2-C7alkoxycarbonyl, C2-C7 haloalkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ haloalkenyloxycarbonyl, C₂-C₇ alkylcarbonyl, C₂-C₇ haloalkylcarbonyl, C₁-C₆ alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ hydroxyalkyl, phenyl or benzyl wherein the phenyl and benzyl are optionally substituted by one or more groups independently selected from the group consisting of 10 halogen, cyano, hydroxy, mercapto, amino, C1-C6 alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl.

Preferably, R₃ represents hydrogen, halogen, cyano, mercapto, hydroxy, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ haloalkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, pyrrolidino, imidazolino, triazolino, tetrazolino, formyl, C2-C5 alkylcarbonyl, C2-C5 haloalkyl-C₁-C₆alkylthio, C_1 - C_6 alkylsulfinyl, 20 C_1 - C_6 alkylsulfonyl, C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl or C₁-C₆ hydroxyalkyl.

More preferably, R₃ represents hydrogen, halogen, cyano, $\mathrm{C_1\text{-}C_4}$ alkyl, $\mathrm{C_1\text{-}C_4}$ haloalkyl, $\mathrm{C_2\text{-}C_4}$ alkenyl, $\mathrm{C_2\text{-}C_4}$ alkynyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂alkylamino, the linkage site is located at the carbon atom labelled "CH" or $_{25}$ $\stackrel{()}{\text{di}(C_1-C_6\text{alkyl})}$ amino, pyrrolidino, imidazolino, triazolino, companio, pyrrolidino, imidazolino, triazolino, companio, pyrrolidino, imidazolino, triazolino, companio, companio, pyrrolidino, imidazolino, triazolino, companio, pyrrolidino, imidazolino, companio, formyl, phenyl, C2-C4 alkylcarbonyl, C1-C6 alkylthio, C1-C6 alkylsulfinyl, $\mathrm{C_1\text{-}C_6}$ alkylsulfonyl or $\mathrm{C_1\text{-}C_6}$ hydroxyalkyl.

Even more preferably, R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ 30 alkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, pyrrolidino, imidazolino, triazolino, formyl, C₂-C₄alkylcarbonyl, C₁-C₄alkylthio, C₁-C₄ alkylsulfinyl, $\mathrm{C_1\text{-}C_4}$ alkyl
sulfonyl, $\mathrm{C_1\text{-}C_4}$ haloalkylthio, $\mathrm{C_1\text{-}C_4}$ haloalkyl sulfinyl or C₁-C₄ haloalkylsulfonyl or C₁-C₆ hydroxyalkyl.

More preferably again, R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₁-C₄ alkylthio, C_1 - C_4 alkylsulfinyl or C_1 - C_4 alkylsulfonyl.

Favourably, R₃ represents hydrogen, halogen, cyano, $\mathrm{C_1\text{-}C_4} \text{ alkyl}, \mathrm{C_1\text{-}C_4} \text{ haloalkyl}, \mathrm{C_2\text{-}C_4} \text{ alkenyl}, \mathrm{C_2\text{-}C_4} \text{ alkynyl},$ C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₁-C₄ alkylthio, C₁-C₄ alkyl
sulfinyl or $\mathrm{C}_1\text{-}\mathrm{C}_4$ alkylsulfonyl.

Even more favourably, R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkynyl, C₁-C₄ 45 alkoxy or C₃-C₆ cycloalkyl.

More favourably again, R3 represents hydrogen, halogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, cyclopropyl, ethynyl or C₁-C₄

Yet more favourably, R₃ is selected from hydrogen, bromine, iodine, methyl, CHF₂, cyclopropyl, ethynyl and meth-

Yet more favourably still, R₃ represents hydrogen, bromine, iodine, methyl, difluoromethyl or methoxy.

Most preferably, R₃ represents bromine or methyl.

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄ alkyl, $\mathrm{C_1\text{-}C_4}$ haloalkyl, $\mathrm{C_3\text{-}C_6}$ cycloalkyl, $\mathrm{C_2\text{-}C_4}$ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₁-C₄ alkylthio, C₁-C₄ alkylsulfinyl, C₁-C₄ alkylsulfonyl, methylamino or dimethylamino.

Preferably, R4 is selected from hydrogen, fluorine, chlorine, bromine, C_1 - C_4 alkyl, C_1 - C_4 alkenyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_3 - C_6 cycloalkyl.

More preferably, R₄ is selected from fluorine, chlorine, bromine, C₁-C₄ alkyl, C₁-C₄ alkenyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₃-C₆ cycloalkyl.

Even more preferably, R₄ is selected from fluorine, chlorine, methyl, ethyl, ethenyl, propyl, propenyl, isopropyl, iso-

propenyl, cyclopropanyl, methoxy, ethoxy, monofluoromethyl, polyfluoromethyl, monofluoroethyl polyfluoromethyl.

More preferably again, R4 is selected from methyl, ethyl, methoxy, fluorine and chlorine.

More favourably again, R4 is selected from methyl, methoxy, fluorine and chlorine.

Most preferably, R₄ is methyl.

In another group of compounds, R_{\perp} is selected from methoxy, fluorine and chlorine.

 C_1 - C_{12} alkyl, C_3 - C_{12} alkenyl, is hydrogen, $C_3\text{-}C_{12}\text{alkynyl}, C_1\text{-}C_{12}\text{alkylsulfonyl}, C_2\text{-}C_{12}\text{alkenylsulfonyl},$ phenylsulfonyl or benzylsulfonyl, or is C₁-C₁₂alkyl, C_2 - C_{12} alkynyl, C_1 - C_{12} alkylsulfonyl, C_2 - C_{12} alkenyl, mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, C2-C7alkylcarbonyl, C₂-C₇haloalkylcarbonyl, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C₁-C₆haloalkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkylthio, 20 C₁-C₆alkylsulfinyl and C₁-C₆alkylsulfonyl; or

 R_5 is formyl, C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, C_3 - C_{12} alkynylcarbonyl, C_4 - C_{12} cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, C_2 - C_{12} alkoxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C_4 - C_{12} alkynyloxycarbonyl, 25 C₄-C₁₂ cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl, or is C₂-C₁₂ alkylcarbonyl, C₃-C₁₂ alkenylcarbonyl, C₃-C₁₂ alkynylcarbonyl, C₄-C₁₂ cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, C_2 - C_{12} alkoxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C_4 - C_{12} alkynyloxycarbonyl, C₄-C₁₂ cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy; or

 $(R_{54}O)(R_{55}O)(R_{56}O)Si-(C_1 (R_{55}O)(R_{56}O)Si$ —, C_{12} alkyl)- or $(R_{54}O)(R_{55}O)(R_{56}O)Si-(C_3-C_8cycloalkyl)-;$

 $R_5 \text{ is } C_1\text{-}C_6 \text{alkyl-B} -\!\!\!\!-\!\!\!\!-\!\!\!\!\!- C_1\text{-}C_{12} \text{alkyl-}, C_2\text{-}C_6 \text{alkenyl-B} -\!\!\!\!-\!\!\!\!- C_1\text{-} \ \ \, \text{40}$ C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, benzyl-B—C₁- C_3 - C_8 cycloalkyl-B— C_1 - C_{12} alkyl-, $C_{12}alkyl-, \quad phenyl-B-C_1-C_{12}alkyl-, \quad C_1-C_6alkyl-B-C_2-C_6alkyl-B-C_2-C_6alkyl-B-C_2-C_6alkyl-B-C_2-C_6alkyl-B-C_2-C_6alkyl-B-C_6alk$ C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, C_{12} alkenyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkenyl-, C_3 - C_8 cycloalkyl-B— C_2 - 45 C_{12} alkenyl-, benzyl- $B-C_2-C_{12}$ alkenyl-, phenyl- $B-C_2$ - C_{12} alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C_2 - C_6 alkenyl-B—C₂-C₁₂alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, C_3 - C_8 cycloalkyl-B— C_2 - C_{12} alkynyl-, benzyl-B— C_2 - C_{12} alkynyl-, phenyl-B— C_2 - C_{12} alkynyl-, C_1 - C_6 alkyl-B— 50 C₃-C₈cycloalkyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B-C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl- or phenyl-B—C₃-C₁₂cycloalkyl-, wherein the group B is selected from -C(=O), -C(=S), $-C(=NOR_{59})$, $-C(R_{60})$ 55 $(=NR_{13})-, -S(=O)(R_{14})=N-, -N=S(=O)(R_{14})-,$ $-N(R_{62})-C=O)-$, $-C=O)-N(R_{62})-$, $-N(R_{62}) SO_2$ —or — SO_2 — $N(R_{62})$ —; or

 R_5 is C_1 - C_6 alkyl-B— C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C_3 - C_8 cycloalkyl-B— C_1 - C_{12} alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C_2 -C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, 65 C₁, alkenyl-, $\hbox{C}_2\hbox{-C}_6 \hbox{alkynyl-B} - \hbox{C}_2\hbox{-C}_{12} \hbox{alkenyl-, C}_3\hbox{-C}_8 \hbox{cycloalkyl-B} - \hbox{C}_2\hbox{-}$ C₁₂alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, phenyl-B—C₂-

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 $C_{12} alkenyl-, C_1-C_6 alkyl-B-C_2-C_{12} alkynyl-, C_2-C_6 alkenyl-$ C₂-C₆alkynyl-B—C₂-C₁₂alkynyl-, $B-C_2-C_{12}$ alkynyl-, C₃-C₈cycloalkyl-B—C₂-C₁₂alkynyl-, benzyl-B—C2-C₁₂alkynyl-, phenyl-B—C₂-C₁₂alkynyl-, C₁-C₆alkyl-B— C₃-C₈cycloalkyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C_2 - C_6 alkynyl-B— C_3 - C_8 cycloalkyl- C_3 - C_8 cycloalkyl- C_3 - C_8 cycloalkyl- C_8 - C_8 cycloalkyl- C_8 - C_8 -C $\label{eq:c3-C3-C3-C3-C12} C_3\text{-}C_8\text{cycloalkyl-}, \quad \text{benzyl-B---}C_3\text{-}C_{12}\text{cycloalkyl-}, \quad \text{phenyl---}$ B—C₃-C₁₂cycloalkyl-, all of which, in turn, are mono- to poly-substituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, formyl, C₂-C₆ alkylcarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl;

 R_5 is A-, A-(C_1 - C_6 alkyl)-, A-O—(C_1 - C_6 alkyl)-, A-(C_3 -C2-C12alkenylsulfonyl, phenylsulfonyl or benzylsulfonyl 15 C6alkenyl)-, A-O—(C4-C6alkenyl)-, A-(C3-C6-alkynyl)-, A-O—(C₄-C₆alkynyl)-, A-(C₃-C₈cycloalkyl)- or A-O—(C₃-C₈cycloalkyl)-; or

> wherein A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to contain OOO, SSS and OOS fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

> A1) by substituents independently selected from the group consisting of

> halogen, cyano, nitro, hydroxy, mercapto, nitro, azido, formyl, carboxy, \Longrightarrow O, \Longrightarrow S, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ haloalkyl, C₂-C₆ haloalkenyl, C2-C6 haloalkynyl, C3-C8 halocycloalkyl, C1-C6 alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₈ cycloalkyloxy, benzyl, benzyloxy, phenyl and phenoxy, where the benzyl, benzyloxy, phenyl and phenoxy, in turn, may be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, amino, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

> A2) by substituents independently selected form the group consisting of $(R_{14})S(=O)(=NR_{13})$ —, $(R_{14})(R_{15})S(=O)$ =N-; $-Si(R_{51})(R_{52})(R_{53})$, $-NR_{57}R_{58}$, -C(=-O) $NR_{57}R_{58}$, $C(=S)NR_{57}R_{58}$, $HC(=NOR_{59})$ —, (C_1-C_6alkyl) $C(=NOR_{59})$ —, $(C_1-C_6haloalkyl)C(=NOR_{59})$ —, C_6 alkyl)C(=NOR₅₉) C_1 - C_6 alkyl-, (C₁-C₆haloalkyl)C $=NOR_{59})C_1-C_6$ alkyl-, $N(C_1-C_6$ alkyl)aminosulfonyl and N,N-di(C₁-C₆alkyl)aminosulfonyl; or

> A3) by substituents independently selected from the group consisting of

> formyl, C2-C7 alkylcarbonyl, C2-C7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, C_4 - C_9 cycloalkylcarbonyl, C_4 - C_9 halocycloalkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_2 - C_7 haloalkoxycarbonyl, C_3 - C_7 alkenyloxycarbonyl, \tilde{C}_3 - \tilde{C}_7 alkynyloxycarbonyl, C_4 - C_9 cycloalkoxycarbonyl, C_2 - C_7 alkylthiocarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C₁-C₆alkyl, C₁-C₆ haloalkyl and C₁-C₆ alkoxy; or

> A4) by substituents independently selected from the group consisting of hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, cyano, benzyl, phenyl, =C(R³⁶)₂, =N-OH, $=N-O-C_3-C_4$ $=N-O-C_1-C_4$ -alkyl, alkenvl. =N-O-C $_3$ -C $_4$ alkynyl, =N-O-C $_1$ -C $_4$ haloalkyl, $=N-O-C_3-C_4$ haloalkenyl, ≕N—O-benzyl

==N—O-phenyl, wherein the ==N—O-benzyl and ==N—O-phenyl are optionally substituted by one or more group selected from the group consisting of halogen, methyl,

 R_5 is $-N = C(R_8)(R_9)$; or

halomethyl; or

 R_5 is a $C_8\text{-}C_{11}$ spirobicyclic system containing 0, 1 or 2 O, S or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO_2, OH, SH, CHO, COOH, tri(C_1-C_6-alkyl)silyl, $C_1\text{-}C_6$ alkyl, —CH(CH_3)—CH_2— 10 CH_2—CH_3, —CH—CH(CH_3)—CH_2—CH_3, —CH_2—CH_2—CH(CH_3), —CH_2—CH_2—CH(CH_3)_2, —CH (CH_3)—CH(CH_3)_2, C_1-C_6 haloalkyl, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ haloalkenyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy, $C_2\text{-}C_7\text{-}$ alkylcarbonyl, $C_2\text{-}C_7\text{-}$ alkoxycarbonyl, $C_4\text{-}C_7\text{-}$ alkynyloxycarbonyl, $C_4\text{-}C_7\text{-}$ alkynyloxycarbonyl, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylsulfinyl, $C_1\text{-}C_6$ alkylsulfonyl, —O, —C(—O)NH_2, —C(—O)NH (CH_3), —C(—O)N(CH_3)_2 and —C(—S)NH_2.

Preferably, R_5 represents hydrogen, C_1 - C_{12} alkylsulfonyl, 20 C_1 - C_{12} alkyl, C_3 - C_{12} alkenyl, C_3 - C_{12} alkynyl, or is C_1 - C_{12} alkyl, C_2 - C_{12} alkenyl, C_2 - C_{12} alkynyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbo- 25 nyl, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

 R_5 is $C_1\hbox{-} C_6 alkyl\hbox{-} B\hbox{---} C_1\hbox{-} C_2 alkyl\hbox{--}, \, C_2\hbox{-} C_6 alkenyl\hbox{-} B\hbox{----} C_1\hbox{--}$ C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, 35 C_3 - C_8 cycloalkyl-B— C_1 - C_{12} alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C_2 -C₁₂alkenyl-, C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, C₂-C₆alkyl- $B - C_2 - C_{12} \\ alkenyl-, \quad C_3 - C_8 \\ cycloalkyl-B - C_2 - C_{12} \\ alkenyl-,$ phenyl-B—C₂-C₁₂alkenyl-, 40 benzyl-B—C₂-C₁₂alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C₂-C₆alkenyl-B—C₂-C₁₂alkynyl-, C₂-C₆alkynyl-B—C₂-C₁₂alkynyl-, C₃-C₈cycloalkyl-B—C₂-C₁₂alkynyl-, benzyl-B—C₂- $\begin{array}{lll} C_{12} & \text{alkynyl-}, & \text{phenyl-B---}C_2-C_{12} & \text{alkynyl-}, & C_1-C_6 & \text{alkyl-B---}\\ C_3-C_8 & \text{cycloalkyl-}, & C_2-C_6 & \text{alkenyl-B---}C_3-C_8 & \text{cycloalkyl-}, & 45 \end{array}$ C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B-C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl- or phenyl-B—C₃-C₁₂cycloalkyl-, wherein the group B is selected from $-C(=O)-, -C(=S)-, -C(=NOR_{59})-, -C(R_{60})$ =NO-, -ON=C(R₆₀)-, -O-C(=O)-, -C(=O)- 50 $-N(R_{62})$ —C=O)—, —C=O)— $N(R_{62})$ —, — $N(R_{62})$ SO_2 —or — SO_2 — $N(R_{62})$ —; or

 \overline{R}_5 is C_1 - C_6 alkyl-B— \overline{C}_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - 55 C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkenyl-, C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C_2 - C_6 alkyl- $B-C_2-C_{12}$ alkenyl-, C_3-C_8 cycloalkyl- $B-C_2-C_{12}$ alkenyl-, 60 phenyl-B—C₂-C₁₂alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C_2 - C_6 alkenyl-B— C_2 -C₂-C₆alkynyl-B—C₂-C₁₂alkynyl-, C₁₂alkynyl-, C₃-C₈cycloalkyl-B—C₂-C₁₂alkynyl-, benzyl-B—C₂- C_{12} alkynyl-, phenyl-B— C_2 - C_{12} alkynyl-, C_1 - C_6 alkyl-B— 65 C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C3-C8cycloalkyl-, C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B-

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 $\rm C_3\text{-}C_8cycloalkyl\text{-},\ benzyl\text{-}B---C_3\text{-}C_{12}cycloalkyl\text{-},\ phenyl\text{-}B---C_3\text{-}C_{12}cycloalkyl\text{-},\ all\ of\ which,\ in\ turn,\ are\ mono-\ to\ polysubstituted\ by\ substituents\ independently\ selected\ from\ the\ group\ consisting\ of\ halogen,\ cyano,\ hydroxy,\ mercapto,\ C_1\text{-}C_6\ haloalkyl,\ C_1\text{-}C_6\ alkoxy,\ formyl,\ C_2\text{-}C_6\ alkylcarbonyl,\ C_1\text{-}C_6\ alkylthio,\ C_1\text{-}C_6\ alkylsulfinyl\ and\ C_1\text{-}C_6\ alkylsulfonyl;\ or\ }$

 R_5 is selected from A-, A-(C_1 - C_6 alkyl)-, A-O—(C_1 - C_6 alkyl)-, A-(C_3 - C_6 alkenyl)-, A-O—(C_4 - C_6 alkenyl)-, A-(C_3 - C_6 -alkynyl)-, A-O—(C_4 - C_6 alkynyl)-, A-(C_3 - C_8 cycloalkyl)- and A-O—(C_3 - C_8 cycloalkyl)-;

wherein A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

A1) by substituents independently selected from the group consisting of

halogen, cyano, nitro, hydroxy, mercapto, nitro, azido, formyl, carboxy, =O, =S, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkynyl, C_3 - C_8 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_8 cycloalkyloxy, C_3 - C_8 halocycloalkyloxy, C_3 - C_8 cycloalkenyloxy, C_3 - C_8 halocycloalkyloxy, benzyl, benzyloxy, phenyl and phenoxy, where the benzyl, benzyloxy, phenyl and phenoxy, in turn, may be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, amino, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

A3) by substituents independently selected from the group consisting of

formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, C_4 - C_9 cycloalkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_4 - C_7 alkoxycarbonyl, C_4 - C_9 cycloalkoxycarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy; or

A4) by substituents independently selected from the group consisting of hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl, C_2 - C_4 haloalkenyl, cyano, benzyl, phenyl, \longrightarrow $C(R^{36'})_2$, \longrightarrow $N\longrightarrow$ OH, \longrightarrow $N\longrightarrow$ $O-C_1$ - C_4 -alkyl, \longrightarrow $N\longrightarrow$ $O-C_3$ - C_4 alkenyl, \longrightarrow $N\longrightarrow$ $O-C_3$ - C_4 alkynyl, \longrightarrow $N\longrightarrow$ $O-C_1$ - C_4 haloalkyl, \longrightarrow $N\longrightarrow$ O- benzyl and \longrightarrow $N\longrightarrow$ O- phenyl, wherein the \longrightarrow $N\longrightarrow$ O- benzyl are optionally substituted by one or more group selected from the group consisting of halogen, methyl, halomethyl; or

 R_5 is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O, S or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO $_2$, OH, SH, CHO, COOH, tri(C_1 - C_6 -alkyl)silyl, C_1 - C_6 alkyl, —CH(CH $_3$)—CH $_2$ —CH $_2$ —CH $_3$, —CH—CH(CH $_3$)—CH $_2$ —CH $_3$, —CH—CH(CH $_3$)—CH $_2$ —CH(CH $_3$)—CH $_3$, —CH $_3$ —

polysubstituted by substituents selected from the group consisting of methyl, halogen, cyano.

 $\begin{array}{lll} C_2\text{-}C_7\text{alkoxycarbonyl}, & C_4\text{-}C_7\text{-alkenyloxycarbonyl}, \\ C_4\text{-}C_7\text{alkynyloxycarbonyl}, C_1\text{-}C_6\text{ alkylthio}, C_1\text{-}C_6\text{ alkylsulfinyl}, \\ C_1\text{-}C_6\text{ alkylsulfonyl}, & C_1\text{-}C_1\text{-}C_2\text{-alkylsulfinyl}, \\ C(C_1\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}C_2\text{-}}) & C_1\text{-}C_2\text{-$

More preferably, R_5 is selected from G^1 , G^2 , G^3 - G^4 , G^5 , 5 , 6 - G^7 , G^8 , G^9 , G^{10} - G^{11} , G^{12} , G^{13} , G^{14} , G^{15} and G^{16} .

More preferably again, R_5 is selected from G^1 , G^2 , G^5 , G^6 - G^8 , G^9 , G^{10} - G^{11} , G^{12} , G^{14} , G^{15} and G^{16} .

More favourably again, R_5 is selected from G^2 , G^5 , G^6 - G^7 , G^8 , G^9 , G^{10} - G^{11} , G^{14} , G^{16} .

Most preferably, R_5 is selected from G^2 , G^5 , G^8 and G^{10} - G^{11} .

R₆ is selected from hydrogen and SH.

Most preferably, R₆ is hydrogen.

In one group of compounds, R₆ is SH.

 R_7 is hydrogen, halogen or C_1 - C_4 alkyl.

Preferably, R_7 is hydrogen or C_1 - C_4 alkyl.

Most preferably, R_7 is hydrogen.

R₈ and R₉, independently from each other, are hydrogen, 20 halogen, cyano, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₂-C₁₂ alkynyl, $\mathrm{C}_1\text{-}\mathrm{C}_{12}$ alkoxy, formyl, $\mathrm{C}_2\text{-}\mathrm{C}_{12}$ alkylcarbonyl, $\mathrm{C}_3\text{-}\mathrm{C}_{12}$ alkenylcarbonyl, carboxy, C_2 - C_{12} alkoxycarbonyl and C_4 - C_{12} alkenyloxycarbonyl, or C_1 - C_{12} alkenyl, C_2 - C_{12} alkenyl, $C_2\text{-}C_{12}\text{alkynyl}, C_1\text{-}C_{12}\text{alkoxy}, C_2\text{-}C_{12}\text{alkylcarbonyl}, C_3\text{-}C_{12}$ alkenylcarbonyl, C₂-C₁₂ alkoxycarbonyl and C₄-C₁₂ alkenyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, C1-C6 alkyl, C1-C6 haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, 30 C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl; or R₈ and R₉ together from a C2-C8 alkylene bridge which may optionally be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C1-C6 alkyl and C₁-C₆ haloalkyl; or R₈ and R₉, independently from 35 each other, are the groups A-, A-O— or A-(C₁-C₆alkyl)-.

 R_{10} is H, $C_1\text{-}C_4$ alkyl, $C_2\text{-}C_4$ alkenyl or $C_1\text{-}C_4$ haloalkyl. R_{13} is hydrogen, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ haloalkenyl, $C_3\text{-}C_6$ eycloalkyl, $C_3\text{-}C_8$ halocycloalkyl, phenyl and benzyl, or is phenyl and benzyl mono- to polysubstituted by halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl or $C_1\text{-}C_6$ alkoxy.

 R_{14} and R_{15} , independently of each other, are $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_8$ halocycloalkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ haloalkenyl, $C_2\text{-}C_6$ alkynyl, benzyl or 45 phenyl, or benzyl or phenyl independently of each other, substituted by substituents selected from the group consisting of halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl and $C_1\text{-}C_6$ alkoxy.

 R_{51} , R_{52} , R_{53} , independently of each other, are halogen, 50 cyano, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_3 - C_8 cycloalkyl, C_5 - C_8 cycloalkenyl, C_2 - C_6 alkynyl, C_1 - C_6 alkoxy, benzyl or phenyl.

 $R_{54},R_{55},R_{56},$ independently of each other, are $C_1\hbox{-} C_6$ alkyl, $C_3\hbox{-} C_6$ alkenyl, $C_3\hbox{-} C_8$ cycloalkyl, $C_3\hbox{-} C_6$ alkynyl, benzyl or phenyl.

 $\rm R_{57}$ and $\rm R_{58}$, independently of each other, are hydrogen, $\rm C_1\text{-}C_6$ alkyl, $\rm C_1\text{-}C_6$ haloalkyl, $\rm C_3\text{-}C_6$ alkenyl, $\rm C_3\text{-}C_6$ haloalkenyl, $\rm C_3\text{-}C_6$ alkynyl, $\rm C_3\text{-}C_8$ cycloalkyl, $\rm C_3\text{-}C_8$ halocycloalkyl, phenyl or benzyl, where phenyl or benzyl for their part may be mono- to polysubstituted on the phenyl ring by substituents of independently selected from the group consisting of halogen, cyano, hydroxy, $\rm C_1\text{-}C_6$ alkyl, $\rm C_1\text{-}C_6$ haloalkyl and $\rm C_1\text{-}C_6$ alkoxy, or $\rm R_{57}$ and $\rm R_{58}$ together with their interconnecting nitrogen atom are aziridino, azetidino, pyrazolino, pyrazolidino, pyrrolino, pyrrolidino, imidazolino, imidazolidino, triazolino, tetrazolino, piperazino, piperidino, morpholino, thiomorpholino, each of which, in turn, may be mono- or

 R_{59} is hydrogen, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ haloalkenyl, $C_3\text{-}C_6$ alkynyl, $C_3\text{-}C_8$ cycloalkyl, $C_3\text{-}C_8$ halocycloalkyl, benzyl and phenyl, and benzyl and phenyl mono- to polysubstituted by halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl or $C_1\text{-}C_6$ alkoxy.

 R_{60} is hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_3 - C_8 halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, benzyl or phenyl, or benzyl or phenyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy;

 R_{62} is hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_3 - C_8 halocycloalkyl, C_3 - C_6 alkenyl, C_3 - C_6 alkynyl, benzyl or phenyl, or benzyl or phenyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy.

 G^1 is a C_8 - C_{10} fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl and cyano.

More preferably, G^1 is a C_9 - C_{10} fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl and cyano.

More preferably again, G^1 is a C_9 - C_{10} fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from C_1 - C_4 alkyl, fluorine, methoxy and C_1 - C_4 fluoroalkyl.

More favourably, G^1 is a saturated C_9 - C_{10} fused bicyclic ring system which is optionally substituted by one or more groups independently selected from C_1 - C_4 alkyl, fluoro, methoxy and C_1 - C_4 fluoroalkyl.

More favourably again, G^1 is a saturated C_{10} fused bicyclic ring system which is optionally substituted by one or more groups independently selected from C_1 - C_4 alkyl, fluorine, methoxy and C_1 - C_4 fluoroalkyl.

Most preferably, G^{1} is a saturated C_{10} fused bicyclic ring system.

G² is C₃-C₆ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH (CH₃)—CH₂—CH, —CH₂—CH(CH₃)—CH, —CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₂-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-Cȝ alkylcarbonyl, C₂-Cȝ alkynyloxycarbonyl, C₄-Cȝ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, —C(—O)NH₂, —C(—O)NH(CH₃), —C(—O)N(CH₃)₂ and —C(—S)NH₂;

More preferably again, G² is C₃-C₆ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH₃—CH₂—CH₂—CH(CH₃)—CH₂—CH₂—CH₂—CH (CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₂-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio.

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Favourably, G² is C₅-C₆ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂-CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH 5

More favourably, G² is a C₅-C₆ cycloalkenyl group optionally substituted by one or more groups independently selected from fluorine, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, 10 sec-butyl, tert-butyl.

More favourably again, G² is a C₅-C₆ cycloalkenyl group optionally substituted by one or more fluorine atoms.

Most preferably, G^2 is a C_5 - C_6 cycloalkenyl group.

In one group of compounds, G² is a C₅-C₆ cycloalkenyl 15 group optionally substituted one or more groups selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, $-CH(CH_3)-CH_2-CH_2-CH_3$ $-CH-CH(CH_3)-CH_2-CH_3$, --CH2---CH2---CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — -CH(CH₃)-- 20 $CH(CH_3)_2$, C_2 - C_6 haloalkyl and C_1 - C_6 alkoxy.

Preferably in this group of compounds, G² is a C₅-C₆ cycloalkenyl group optionally substituted one or more groups selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl.

G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, C1-C4 alkyl, $\mathrm{C_1\text{-}C_4}$ haloalkyl, $\mathrm{C_2\text{-}C_4}$ alkenyl, $\mathrm{C_2\text{-}C_4}$ alkynyl, $\mathrm{C_1\text{-}C_4}$ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen.

More preferably again, G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_1 - C_4 fluoroalkyl, C_1 - C_4 alkoxy and halogen.

More favourably again, G³ is phenyl, which is optionally 35 substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, CHF₂, CF₃, C₁-C₄ alkoxy and

Yet more favourably, G³ is phenyl, which is optionally substituted by one or more groups independently selected 40 from C₁-C₄ alkyl, CHF₂, CF₃, C₁-C₄ alkoxy and halogen.

Most preferably, G³ is phenyl.

G⁴ is C₃-C₁₂ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, 45 halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen.

More preferably again, G⁴ is C₅-C₆ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ 50 alkynyl, C₁-C₄ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen.

More favourably again, G^4 is C_5 - C_6 cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ 55 which is optionally substituted by one or more halogen. alkynyl, C₁-C₄ alkoxy and halogen.

Yet more favourably, G^4 is C_5 - C_6 cycloalkyl which is optionally substituted by one or more groups independently selected from C₁-C₄ alkyl, C₁-C₄ alkoxy and halogen.

Yet more favourably still, G⁴ is cyclohexyl or cyclopentyl. 60 Most preferably, G⁴ is cyclohexyl.

 G^5 is C_3 - C_7 cycloalkyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, (CH_3) — CH_2 — CH_3 , $-CH_2-CH_2-CH(CH_3)-CH_3$

 $--CH(CH_3)--CH(CH_3)_2$, $-CH_2-CH_2-CH(CH_3)_2$, $\mathrm{C_2\text{-}C_6}$ haloalkyl, $\mathrm{C_3\text{-}C_6}$ cycloalkyl, $\mathrm{C_3\text{-}C_6}$ halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C₃-C₆-alkenyloxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C_4 - C_7 alkenyloxycarbonyl, C_4 - C_7 alkynyloxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, phenoxy, $-C(=O)NH_2$, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$.

More preferably, G⁵ is C₃-C₇ cycloalkyl, which is optionally substituted by one or more groups independently selected from halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂-CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ — $CH(CH_3)_2$, C_2 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_3 - C_4 alkenyloxy, phenoxy and C_1 - C_6 alkylthio.

More preferably again, G⁵ is C₃-C₇ cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, $-CH(CH_3)-CH_2-CH_3-CH_3$ -CH $-CH(CH_3)$ $-CH_2$ $-CH_3$, $-CH_2-CH_2-CH$ (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ — CH(CH₃)₂, C₂-C₆ haloalkyl, C₁-C₆ alkoxy, C₃-C₄-alkenyloxy, phenoxy and C₁-C₆ alkylthio.

More preferably still, G^5 is C_5 - C_7 cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, $-CH(CH_3)-CH_2-CH_2-CH_3$, -CH $-CH(CH_3)$ $-CH_2$ $-CH_3$, —CH,—CH,—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ — CH(CH₃)₂, C₁-C₄ alkoxy, C₃-C₄-alkenyloxy, phenoxy and $\mathrm{C}_2\text{-}\mathrm{C}_6$ haloalkyl.

More favourably again, G⁵ is C₅-C₆ cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, $-CH(CH_3)-CH_2-CH_2-CH_3$ tert-butvl. n-pentyl, $-CH--CH(CH_3)--CH_2--CH_3$, $-CH_2-CH_2-CH$ (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ — CH(CH₃)₂ and C₂-C₆ haloalkyl.

Yet more favourably, G⁵ is C₅-C₆ cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tertbutyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH- $CH(CH_3)$ — CH_2 — CH_3 , — CH_2 — CH_2 — $CH(CH_3)$ — CH_3 , $-CH_2$ — $-CH_2$ — $-CH(CH_3)_2$ — $-CH(CH_3)$ — $-CH(CH_3)_2$, $-CHF_2$ and CF₃.

Most preferably, G⁵ is C₆ cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH $--CH_2--CH_2--CH(CH_3)---CH_3$, (CH_3) — CH_2 — CH_3 , $-\mathrm{CH}_2-\mathrm{CH}_2-\mathrm{CH}(\mathrm{CH}_3)_2$ and $-\mathrm{CH}(\mathrm{CH}_3)-\mathrm{CH}(\mathrm{CH}_3)_2$. In another group of compounds, G^5 is a C_5 - C_6 cycloalkyl,

More preferably in this group, G⁵ is a C₅-C₆ cycloalkyl, which is optionally substituted by one or more fluorine.

Even more preferably in this group, G⁵ is an unsubstituted C₅-C₆ cycloalkyl.

In another group of compounds, G⁵ is a C₅-C₆ cycloalkyl, which is optionally substituted by one or more groups selected from the group consisting of C₁-C₄ alkoxy, C₃-C₄alkenyloxy or phenoxy.

Preferably in this group of compounds, G⁵ is a C₅-C₆ cycloalkyl, which is optionally substituted by one or more groups selected from the group consisting of methoxy, ethoxy, C₃-C₄ alkenyloxy and phenoxy.

 G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylhio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthioyl and C₁-C₆ haloalkylsulfonyl.

More preferably again, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO_2 , OH, SH, CHO, $C(=O)NH_2$, C(=O)NH (CH_3), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, C_2-C_6 alk-20 enyl, C_2-C_6 alkenyloxy, C_3-C_6 alkynyloxy, C_1-C_6 haloalkoxy, C_3-C_6 alkenyloxy, C_3-C_6 alkylsulfonyl.

Yet more preferably, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkenyl, C_1 - C_6 alkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy and C_1 - C_6 alkylthio.

Favourably, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy.

More favourably again, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_1 - C_4 alkoxy.

Yet more favourably, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more halogen, CHF₂, CF₃ and C₁-C₄ alkyl.

Most preferably, G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more methyl, bromine, iodine or chlorine.

In one group of compounds, G⁶ is phenyl substituted at the 45 para-position by fluorine and further substituted as in the above paragraphs.

In one group of compounds, G^6 is phenyl substituted at the ortho-position by fluorine and further substituted as in the above paragraphs.

In one group of compounds, G⁶ is phenyl substituted at the meta-position by fluorine and further substituted as in the above paragraphs.

G⁷ is methylene.

G⁸ is

$$R^{14'}$$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$

G⁹ is

$$\mathbb{R}^{25'} \xrightarrow{\mathbb{R}^{24'}} \mathbb{R}^{21'} \begin{picture}(200,0) \put(0,0){\line(1,0){150}} \put(0,0){\l$$

 $\rm G^{10}$ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N (CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ alkynyloxy, C₃-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfonyl, phenyl, 2-phenyl-ethynyl and 2-phenylethyl.

Preferably, G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkoxy, C₃-C₆ cycloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, S₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl.

More preferably, G^{10} is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, OH, SH, CHO, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, phenyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl.

More preferably again, G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, phenyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, cyclopropyl, CH—CH₂, C(CH₃)—CH₂, CH—CH(CH₃), C(CH₃)—CH(CH₃), CH—C(CH₃)₂, C(CH₃)—C(CH₃)₂, CH—CF₂, CH—CCl₂, C—CH, methoxy, ethoxy, iso-propyloxy, OCHF₂, OCH₂—C—CH, OCH (CH₃)—C—CH, SCH₃, SCH₂CH₃, S(—O)CH₃, S(—O)CH₂CH₃, S(—O)CH₃, S(—O)

More favourably again, G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, OH, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, CH—CH₂, C(CH₃)—CH₂, CH—CH(CH₃), C(CH₃)—CH (CH₃), CH—C(CH₃)₂, C(CH₃)—C(CH₃)₂, CH—CF₂, CH—CCl₂, C—CH, methoxy, phenyl, ethoxy, iso-propyloxy and OCHF₂.

Yet more favourably, G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, methyl, ethyl, n-propyl, iso-propyl, ethenyl, methoxy, ethoxy, iso-propyloxy, phenyl, CHF₂, CF₃, 65 CHF—CH₃ and OCHF₂.

Most preferably, G^{10} is phenyl, which is optionally substituted by one or more groups independently selected from

halogen, CN, methyl, ethyl, n-propyl, iso-propyl, ethenyl, methoxy, phenyl, CHF₂, CF₃ and CHF—CH₃.

 $\rm G^{11}$ is methylene substituted by at least one group independently selected from C $_1$ -C $_4$ alkyl, C $_1$ -C $_4$ haloalkyl, CN, C $_1$ -C $_4$ alkoxy and C $_1$ -C $_4$ haloalkoxy. 5

More preferably again, G^{11} is methylene substituted by at least one group independently selected from C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 haloalkoxy.

More favourably again, G^{11} is methylene substituted by at 10 least one group independently selected from C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_1 - C_4 alkoxy.

Yet more favourably, G^{11} is methylene substituted by at least one group independently selected from methyl, ethyl, $_{15}$ CHF $_2$ and CF $_3$.

More favourably still, G^{11} is methylene substituted by at least one group independently selected from methyl, CF_3 and ethyl.

Most preferably, G¹¹ is methylene substituted by at least one group independently selected from methyl and ethyl.

$$G^{12}$$
 is

More preferably again, G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylthio and C_1 - C_2 - C_3 - C_4 - C_5 - C_6 - $C_$

Most preferably, G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more 55 groups independently selected from halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy and \Longrightarrow O.

 G^{15} is

G16 is

$$\mathbf{G}^{17} \xrightarrow[\mathbf{R}^{68'} \mathbf{R}^{66'} \mathbf{R}^{63'} \mathbf{R}^{61'}]{} \#.$$

G¹⁷ is a five- to six-membered monocyclic heteroaromatic 30 ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S (for example, pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, imidazole, oxadiazole, thiadiazole or tetrazole), it not being possible for each ring system to contain —O—O—, —S—S— and —O—S-fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O) NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), $C(=S)N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, $C_3 \cdot C_6$ alkynyloxy, $C_3 \cdot C_6$ cycloalkoxy, $C_3 \cdot C_6$ halocycloalkoxy, $C_1 \cdot C_6$ alkylthio, $C_1 \cdot C_6$ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl.

More favourably again, G^{17} is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S, it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to six-membered-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or benzyl, wherein the phenyl or benzyl are optionally substituted by halogen, CN, C₁-C₄ alkyl or C₁-C₄ haloalkyl.

Yet more favourably, G^{17} is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 or 2 members selected from the group consisting of N, N(R^{69'}), O and S, it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or benzyl,

wherein the phenyl or benzyl are optionally substituted by halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl.

Most preferably, G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 or 2 members selected from the group consisting of N, O and S, it 5 not being possible for each ring system to contain —O—O--S—S— and —O—S— fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, 10 C₁-C₄ haloalkoxy, phenyl or fluorophenyl. In one group of compounds, G¹⁷ is selected from pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, imidazole, oxadiazole, thiadiazole or tetrazole each of which may be substituted by one or more groups selected from the group consisting of 15 halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH (CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, 20 C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C_3 - C_6 halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkyl
sulfonyl and $\mathrm{C}_1\text{-}\mathrm{C}_6$ haloalkyl
sulfonyl.

More favourably again in this group, G^{17} is selected from pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, imidazole, oxadiazole, thiadiazole or tetrazole each of which may be substituted by one or more groups selected from the group consisting of halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, phenyl or benzyl, wherein the phenyl or benzyl are optionally substituted by halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl.

Yet more favourably in this group, G^{17} is selected from pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, or imidazole each of which may be substituted by one or more groups selected from the group consisting of halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, phenyl or benzyl, wherein the phenyl or benzyl are optionally substituted by halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 40 haloalkyl.

Most preferably in this group, G^{17} is selected from pyridine, furan, pyrrole, thiazole or oxazole or imidazole each of which may be substituted by one or more groups selected from the group consisting of halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 45 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, phenyl or fluorophenyl.

In another group of compounds, G^{17} is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 member selected from the group consisting of N and O 50 (for example, pyridine, furan or pyrrole), it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy or C_1 - C_4 haloalkoxy.

Preferably in this group, G¹⁷ is pyridine, furan or pyrrole each of which may be mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy or C₁-C₄ haloalkoxy.

In another group of compounds, G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 2 members selected from the group consisting of N, O and S, (for example oxazole or thiazole) it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to 65 six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halo-

gen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, phenyl or fluorophenyl.

Preferably in this group, G^{17} is oxazole or thiazole each of which may be mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, phenyl or fluorophenyl.

 $R^{1'}$ is selected from the group consisting of hydrogen, fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl;

R^{2'}, R^{3'}, R^{4'} and R^{5'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₁-C₄ alkylthio.

More preferably again, $R^{1'}$ is selected from the group consisting of hydrogen, fluorine, C_1 - C_4 alkyl and C_1 - C_4 fluoroalkyl:

 $R^{2'}$, $R^{3'}$, $R^{4'}$ and $R^{5'}$ are selected, independently of each other, from the group consisting of hydrogen, fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio.

Yet more preferably, R^{1'}, R^{2'}, R^{3'}, R^{4'} and R^{5'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, methoxy, ethoxy and S—CH₃S—CH₂CH₃.

More favourably again, R¹ is selected from the group consisting of hydrogen, fluorine, methyl, CH₂F and CF₃;

R^{2'}, R^{3'}, R^{4'} and R^{5'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, CH₂F, CF₃ and methoxy.

Most preferably, R¹', R²', R³', R⁴' and R⁵' are each hydrogen.

 $R^{11'},R^{12'},R^{13'}$ and $R^{14'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH(CH3), C(=O)N(CH3)2, C(=S)NH2, C(=S)NH(CH3)3, C(=S)N(CH3)2, SO2NH2, SO2NH2, SO2NH(CH3)3, SO2N(CH3)2, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C1-C6 alkoxy, C1-C6 haloalkoxy, phenyl, C3-C6 alkenyloxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 cycloalkoxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 alkylthio, C1-C6 haloalkylthio, C1-C6 alkylsulfinyl, C1-C6 haloalkylsulfinyl, C1-C6 alkylsulfonyl and C1-C6 haloalkylsulfonyl.

More preferably again, $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are selected, independently of each other, from the group consisting of hydrogen, cyano, halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio. More favourably again, $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are

More favourably again, R^{11} , R^{12} , R^{13} and R^{14} are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, CHF_2 , CF_3 and C_1 - C_4 alkoxy.

Most preferably, R^{11'}, R^{12'}, R^{13'} and R^{14'} are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₁-C₄ alkoxy.

R^{15'} and R^{16'} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₃-C₆ cycloalkyl; each R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected inde-

each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are independently selected from the

R^{23'}, R^{24'} and R^{25'} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio.

More preferably again, R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are independently selected from the group consisting

of hydrogen, halogen, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃ and CF₂CF₃;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio.

Favourably, R¹⁵', R¹⁶', R¹⁷', R¹⁸', R¹⁹', R²⁰', R²¹' and R²²' are independently selected from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH2-CF3

R²³', R²⁴' and R²⁵' are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio.

More favourably, $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and R^{22'} are each independently selected from hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂ and CF₃ and isopropyl;

R²³', R²⁴' and R²⁵' are independently selected from the 20 group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio.

More favourably again, R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R²² are each independently selected from hydrogen, 25 fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃ and isopropyl;

R²³', R²⁴' and R²⁵' are independently selected from the group consisting of hydrogen, methyl, fluorine, chlorine, bro-

mine, ethyl, CH_2F , CHF_2 and CF_3 and isopropyl. Yet more favourably, $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ 30 and R^{22'} are each independently selected from hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃ and isopropyl;

R^{23'}, R^{24'} and R^{25'} are each independently selected from hydrogen, fluorine, chlorine, bromine, methyl, ethyl and iso-

Most preferably, $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$, $R^{22'}$. R^{23'}, R^{24'} and R^{25'} are each independently selected from hydrogen, methyl, ethyl and isopropyl.

In one group of compounds, R¹⁵ and R¹⁶ are each independently selected from the group consisting of hydrogen, 40

methyl, F and CF₃
In this group, R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are most preferably each hydrogen.

In another preferred group of compounds, $R^{15'}$ is as described above and $R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ 45 are each hydrogen.

In another group of compounds, R²³', R²⁴' and R²⁵' are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F 50 and R⁴⁴ are each hydrogen, and R³⁷ is as defined above.

 $\begin{array}{l} CH_2-CHF_2 \text{ and } CH_2-CF_3. \\ R^{26'} \text{ is } C(R^{36'})_2, N-O-C_1-C_4\text{-alkyl}, N-O-C_2-C_4\text{-alkenyl}, N-O-C_2-C_4 \text{ alkynyl}, N-O-C_1-C_4 \text{ haloalkyl}, N-O-C_2-C_4 \text{ haloalkenyl}, N-O-benzyl, N-O-phenyl,} \end{array}$ N—O-halophenyl, O wherein the N—O-benzyl and N—O- 55 phenyl may be substituted by one or more groups independently selected from the group consisting of halogen, methyl and halomethyl.

Most preferably, $R^{26'}$ is N—OH, N—O— C_1 - C_4 alkyl, N—O-phenyl, N—O-halophenyl, O or $C(R^{36'})$. $R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'}$ and $R^{35'}$ are each

independently selected from the group consisting of hydrogen, hydroxyl, C1-C4 alkyl, C2-C4 alkenyl, C2-C4 alkynyl, 65 C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, cyano, benzyl and phenyl;

or R28' and R29' together with the two carbon atoms to which they are attached form a double bond.

More preferably again, $R^{27'}$, $R^{28'}$, $R^{29'}$, $R^{30'}$, $R^{31'}$, $R^{32'}$, $R^{33'}$, R^{34'} and R^{35'} are each independently selected from the group consisting of hydrogen, hydroxyl, C₁-C₄ alkyl, C₁-C₄ alkoxy

or R^{28'} and R^{29'} together with the two carbon atoms to which they are attached form a double bond.

More favourably again, R²⁷', R²⁸', R²⁹', R³⁰', R³¹', R³²', R^{33'}, R^{34'} and R^{35'} are each independently selected from the group consisting of hydrogen, C₁-C₄ alkyl and halogen;

or R²⁸ and R²⁹ together with the two carbon atoms to which they are attached form a double bond.

Yet more favourably R²⁷', R²⁸', R²⁹', R³⁰', R³¹', R³²', R³³', $R^{34'}$ and $R^{35'}$ are each hydrogen or methyl;

or R^{28'} and R^{29'} together with the two carbon atoms to which they are attached form a double bond.

Most preferably R²⁷ is hydrogen or methyl;

R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'} and R^{35'} are each hydrogen; or R²⁸ and R²⁹ together with the two carbon atoms to which they are attached form a double bond.

Each R³⁶ is independently selected from hydrogen, halogen and C_1 - C_4 alkyl. $R^{37'}$ and $R^{38'}$ are selected independently of each other from

the group consisting of hydrogen, halogen, cyano, C₁-C₄

alkyl and C_1 - C_4 haloalkyl; $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independent dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, $\begin{array}{l} C_1\text{-}C_4 \text{ alkoxy, } C_1\text{-}C_4 \text{ haloalkoxy and } C_1\text{-}C_4 \text{ alkylthio.} \\ \text{More preferably again, } R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} \end{array}$

and R44 are selected independently of each other from a group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl.

Favourably, R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from a group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂- CHF_2 , and CH_2 — CF_3 .

More favourably again, R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are independently selected from the group consisting of hydrogen, fluorine, methyl and trifluoromethyl.

Yet more favourably, R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R⁴⁴ are hydrogen or methyl.

Most preferably, R³⁷′, R³⁸′, R³⁹′, R⁴⁰′, R⁴¹′, R⁴²′, R⁴³′ and R^{44'} are hydrogen.

In one group of compounds, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$. $R^{43'}$

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl.

More preferably again, R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, ethoxy, difluoromethoxy, trifluoromethoxy, methlythio, methylsulfinyl and methylsulfonyl.

Most preferably, R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are independently selected from the group consisting of hydrogen, fluorine, chlorine, methyl, CF₃, CHF₂, CH₂F, methoxy, difluo- 5 romethoxy and trifluoromethoxy.

R⁵⁰ is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independent dently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy and C_1 - C_4 alkylthio.

More preferably again, R50, is selected from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄

R⁵¹', R⁵²', R⁵³', R⁵⁴', R⁵⁵' and R⁵⁶' are selected, independently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy and C₁-C₄ haloalkoxy.

Favourably, R⁵⁰', R⁵¹', R⁵²', R⁵³', R⁵⁴', R⁵⁵' and R⁵⁶' are 20 selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃, CHF—CH₃ and CF₂—CH₃.

More favourably again, R⁵⁰′, R⁵¹′, R⁵²′, R⁵³′, R⁵⁴′, R⁵⁵′ and R⁵⁶ are selected, independently of each other, from the group 25 consisting of hydrogen, fluorine, methyl, CH₂F and CF

Most preferably, $R^{50'}$, $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are each hydrogen.

R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, 30 NO_2 , OH, SH, CHO, $C(=O)NH_2$, $C(=O)NH(CH_3)$, C(=O) $N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₂-C₆ alkoxy, C₂-C₆ 35 haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, benzyloxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen.

More preferably again, R57, R58, R59 and R60 are selected, independently of each other, from the group consisting of hydrogen, cyano, halogen, C₁-C₆ alkyl and C₁-C₆ 45

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen.

More favourably again, $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ are selected, independently of each other, from the group con- 50 sisting of hydrogen, halogen, cyano, C1-C4 alkyl, CHF2 and

provided that at least one of $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ is not hydrogen.

Most preferably, R⁵⁷′, R⁵⁸′, R⁵⁹′ and R⁶⁰′ are selected, inde-55 pendently of each other, from the group consisting of hydrogen and halogen;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

In another group of compounds, $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ are 60 selected, independently of each other, from the group consisting of hydrogen, phenyl and halophenyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen.

In another group of compounds, $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ are 65 selected, independently of each other, from the group consisting of hydrogen, methy, ethyl and hydroxy-C₂-C₄-alkyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

Preferably in this group, R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ are selected, independently of each other, from the group consisting of hydrogen and hydroxyethyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

 R^{61} and R^{62} are selected independently of each other from the group consisting of hydrogen, fluorine, cyano, C₁-C₄ alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio. More preferably again, $R^{61'}$ and $R^{62'}$ are selected indepen-

dently of each other from the group consisting of hydrogen,

fluorine, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independent dently of each other from the group consisting of hydrogen, fluorine, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C_1 - C_4 haloalkoxy.

More favourably again, R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen,

fluorine, methyl, ethyl, CHF $_2$ and CF $_3$; $R^{62'}$, $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independently of each of there from the group consisting of hydrogen, fluorine, methyl, ethyl, methoxy, difluoromethoxy, trif-

luoromethoxy, CHF $_2$ and CF $_3$. Yet more favourably, R $^{61'}$, R $^{62'}$, R $^{63'}$, R $^{64'}$, R $^{65'}$, R $^{66'}$, R $^{67'}$ and R^{68'} are hydrogen, CHF₂, CF₃ or methyl.

Yet more favourably still, R⁶¹, R⁶², R⁶³, R⁶⁴, R⁶⁵, R⁶⁶,

 $R^{67^{\circ}}$ and $R^{68^{\circ}}$ are hydrogen or methyl. Most preferably, $R^{61^{\circ}},\,R^{62^{\circ}},\,R^{63^{\circ}},\,R^{64^{\circ}},\,R^{65^{\circ}},\,R^{66^{\circ}}$ and R^{68'} are hydrogen.

R⁶⁹ is selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl and C_1 - C_4 alkylcarboxy.

More preferably again, R⁶⁹ is selected from hydrogen, C_1 - C_4 alkyl and C_1 - C_4 alkylcarboxy.

More favourably again, R⁶⁹ is selected from hydrogen and 40 C_1 - C_4 alkyl.

Most preferably, R⁶⁹ is hydrogen.

n is 0 or 1.

In one preferred group of compounds, n is 0.

In another preferred group of compounds, n is 1.

p and q are independently selected from 0 and 1.

In one group of compounds, p and q are 0.

In another group of compounds, p and q are 1

In another group of compounds, p is 1 and q is 0.

r, s and t are independently selected from 0 and 1.

More preferably again, r and s are 0 and t is 1 or 0.

Most preferably, r, s and t are each 0.

In a group of compounds of formula I, R_1 and R_2 are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl and C₃-C₄ alkynyl;

or R₁ and R₂ together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine;

R₃ represents hydrogen, halogen, cyano, mercapto, hydroxy, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_2 - C_4 alkenyl, C_2 - C_4 haloalkenyl, C2-C4 alkynyl, C1-C4 alkoxy, C1-C4 haloalkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl) C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl or C₁-C₆ hydroxyalkyl;

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₄ alkenyl,

 C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, C_1 - C_4 alkylthio, C_1 - C_4 alkylsulfinyl, C_1 - C_4 alkylsulfonyl, methylamino

and dimethylamino;

 R_5 represents hydrogen, $C_1\text{-}C_{12}\text{-}alkylsulfonyl}, <math display="inline">C_1\text{-}C_{12}$ alkyl, $C_3\text{-}C_{12}$ alkenyl, $C_3\text{-}C_{12}$ alkenyl, or is $C_1\text{-}C_{12}$ alkyl, S $C_2\text{-}C_{12}$ alkenyl, $C_2\text{-}C_{12}$ alkynyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, $C_2\text{-}C_7$ alkylcarbonyl, $C_2\text{-}C_7$ haloalkylcarbonyl, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ 10 haloalkoxy, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylsulfinyl and $C_1\text{-}C_6$ alkylsulfonyl; or

 R_5 is C_1 - C_6 alkyl-B— C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B— C_1 - 20 C_{12} alkenyl-, C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C_2 - C_6 alkyl- $B-C_2-C_{12}$ alkenyl-, C_3-C_8 cycloalkyl- $B-C_2-C_{12}$ alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, phenyl-B— C_2 - C_{12} alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C_2 - C_6 alkenyl-B— C_2 - 25 C₁₂alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, C₃-C₈cycloalkyl-B—C₂-C₁₂alkynyl-, benzyl-B—C₂- C_{12} alkynyl-, phenyl- $B-C_2-C_{12}$ alkynyl-, C_1-C_{12} alkyl- $B-C_2-C_{12}$ alkynyl-, C_1-C_{12} alkyl- C_1-C_1 C₃-C₈cycloalkyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B— C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl- or phenyl- SO_2 or $-SO_2$ $N(R_{62})$; or

 R_5 is C_1 - C_6 alkyl-B— C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, 40 C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁-C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, C₁, alkenyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkenyl-, C_3 - C_8 cycloalkyl-B— C_2 - C_{12} alkenyl-, benzyl-B $-C_2$ - C_{12} alkenyl-, phenyl-B $-C_2$ - 45 C_{12} alkenyl-, C_1 - C_6 alkyl-B— C_2 - C_{12} alkynyl-, C_2 - C_6 alkenyl-C₂-C₆alkynyl-B—C₂-C₁₂alkynyl-, $B-C_2-C_{12}$ alkynyl-, benzyl-B— C_2 -C₃-C₈cycloalkyl-B—C₂-C₁₂alkynyl-, C₁₂alkynyl-, phenyl-B—C₂-C₁₂alkynyl-, C₁-C₆alkyl-B-C₃-C₈cycloalkyl-, C_2 - \overline{C}_6 alkenyl-B— C_3 - \overline{C}_8 cycloalkyl-, 50 C₂-C₆alkynyl-B—C₃-C₈cycloalkyl-, C₃-C₈cycloalkyl-B-C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl-, phenyl-B-C₃-C₁₂cycloalkyl-, all of which, in turn, are mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, 55 $\mathrm{C_1\text{-}C_6\ haloalkyl}, \mathrm{C_1\text{-}C_6\ alkoxy}, \mathrm{formyl}, \mathrm{C_2\text{-}C_6\ alkylcarbonyl},$ C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl;

wherein A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to contain 36

—O—O—, —S—S— and —O—S— fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

A1) by substituents independently selected from the group consisting of

halogen, cyano, nitro, hydroxy, mercapto, nitro, azido, formyl, carboxy, =O, =S, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkoxy, C_3 - C_8 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_8 alkenyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_8 cycloalkyloxy, C_3 - C_8 halocycloalkyloxy, C_3 - C_8 cycloalkenyloxy, C_3 - C_8 halocycloalkyloxy, benzyl, benzyloxy, phenyl and phenoxy, where the benzyl, benzyloxy, phenyl and phenoxy, in turn, may be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, amino, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

A3) by substituents independently selected from the group consisting of

formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, C_4 - C_9 cycloalkylcarbonyl, C_4 - C_7 alkoxycarbonyl, C_4 - C_7 alkoxycarbonyl, C_4 - C_7 alkynyloxycarbonyl, C_4 - C_8 cycloalkoxycarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy: or

R₆ is hydrogen;

 R_7 is hydrogen or C_1 - C_4 alkyl.

In another group of compounds of formula I, R_1 and R_2 are each independently selected from hydrogen or C_1 - C_4 alkyl; or R_1 and R_2 together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine;

 R_3 represents hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_2\text{-}C_4$ alkenyl, $C_2\text{-}C_4$ alkynyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, amino, $C_1\text{-}C_2$ alkylamino, di($C_1\text{-}C_6$ alkyl) amino, pyrrolidino, imidazolino, triazolino, formyl, phenyl, $C_2\text{-}C_4$ alkylcarbonyl, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylsulfinyl, $C_1\text{-}C_6$ alkylsulfonyl or $C_1\text{-}C_6$ hydroxyalkyl;

 R_4 is selected from fluorine, chlorine, bromine, C_1 - C_4 alkyl, C_1 - C_4 alkenyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, and C_3 - C_6 cycloalkyl;

 $\begin{array}{c} R_5 \text{ is selected from } G^1,\,G^2,\,G^3\text{-}G^4,\,G^5,\,G^6\text{-}G^7,\,G^8,\,G^9,\\ G^{10}\text{-}G^{11},\,G^{12},\,G^{13},\,G^{14},\,G^{15} \text{ and } G^{16}; \end{array}$

 R_6 is hydrogen;

 R_7 is selected from hydrogen or C_1 - C_4 alkyl;

 $\rm G^1$ is a $\rm C_8\text{-}C_{10}$ fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from hydroxyl, $\rm C_1\text{-}C_4$ alkyl, $\rm C_1\text{-}C_4$ alkoxy, halogen, $\rm C_1\text{-}C_4$ haloalkyl and cyano;

 G^2 is C_3 - C_6 cycloalkenyl, which is optionally substituted 15 by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH $-CH_2-CH_2-CH(CH_3)-CH_3$, (CH_3) — CH_2 — CH_3 , $-CH_2-CH_2-CH(CH_3)_2$, $--CH(CH_3)--CH(CH_3)_2$, C2-C6 haloalkyl, C3-C6 cycloalkyl, C3-C6 halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C_4 - C_7 alkenyloxycarbonyl, C_4 - C_7 alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, $-C(=O)NH_2, -C(=O)NH(CH_3), -C(=O)N(CH_3)_2$ and $-C(=S)NH_2;$

 $\rm G^3$ is phenyl, which is optionally substituted by one or \rm_{30} more groups independently selected from hydroxyl, $\rm C_1\text{-}C_4$ alkyl, $\rm C_2\text{-}C_4$ alkenyl, $\rm C_2\text{-}C_4$ alkynyl, $\rm C_1\text{-}C_4$ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

 G^4 is C_3 - C_{12} cycloalkyl which is optionally substituted by 35 one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

 $\rm G^5$ is $\rm C_3\text{-}C_7$ cycloalkyl, which is optionally substituted by one or more groups independently selected from halogen, $\rm CN, NO_2, OH, SH, CHO, COOH, tri(C_1\text{-}C_6\text{-}alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH_3)—CH_2—CH_2—CH_3, —CH—CH (CH_3)—CH_2—CH_3, —CH—CH_2—CH(CH_3)—CH_3, —CH_2—CH_2—CH(CH_3)_2, C_2\text{-}C_6 haloalkyl, C_3\text{-}C_6 cycloalkyl, C_3\text{-}C_6 halocycloalkyl, C_2\text{-}C_6 alkenyl, C_2\text{-}C_6 haloalkenyl, C_1\text{-}C_6 alkoxy, C_1\text{-}C_6 haloalkoxy, C_3\text{-}C_6\text{-}alkenyloxy, C_2\text{-}C_7 alkylcarbonyl, C_2\text{-}C_7 alkoxycarbonyl, C_4\text{-}C_7 alkylcarbonyl, C_4\text{-}C_7 alkylcarbonyl, C_1\text{-}C_6 alkylsulfinyl, phenoxy, —C(=O)NH_2, —C(=O)NH(CH_3), —C(=O)N(CH_3)_2 and —C(=S)NH_2;$

 G^6 is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH(CH3), C(=O)N(CH3)2, C(=S)NH2, C(=S)NH(CH3), C(=S)N(CH3)2, SO2NH2, SO2NH(CH3), SO2N(CH3)2, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C1-C6 haloalkynyl, C3-C6 alkenyloxy, C3-C6 alkynyloxy, C3-C6 cycloalkoxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 cycloalkoxy, C3-C6 haloalkyllino, C1-C6 haloalkyllino, C1-C6 haloalkyllino, C1-C6 haloalkyllino, C1-C6 haloalkyllinoyl; 65

G⁷ is methylene;

G⁸ is

$$R^{14'}$$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$

G9 is

 $\rm G^{10}$ is phenyl, which is optionally substituted by one or more groups independently selected from hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfonyl, phenyl, 2-phenyl-ethynyl and 2-phenyl-ethyl;

 $\rm G^{11}$ is methylene substituted by at least one group independently selected from $\rm C_1$ - $\rm C_4$ alkyl, $\rm C_1$ - $\rm C_4$ haloalkyl, CN, $\rm C_1$ - $\rm C_4$ alkoxy and $\rm C_1$ - $\rm C_4$ haloalkoxy;

 G^{12} is

$$R^{29'}$$
 $R^{28'}$
 $R^{27'}$
 $R^{26'}$
 $R^{30'}$
 $R^{31'}$
 R^{32}
 $R^{33'}$
 $R^{34'}$

 G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C_1 - C_6 alkyl)silyl, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_2 - C_7 alkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_4 C_7 alkenyloxycarbonyl, C_4 C_7 alkynyloxycarbonyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_1 - C_2 - C_2 - C_3 - C_4 - C_4 - C_4 - C_4 - C_5 - C_5 - C_5 - C_6

G14 is

 G^{15} is

G16 is

$$G^{17} = ()_r ()_s ()_t = ()_t \#,$$
 $R^{68'} = R^{66'} = R^{64'} = R^{62'} \#,$

ring system which can contain 1 to 4 members selected from the group consisting of N, N(R^{69'}), O and S (for example, pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, imidazole, oxadiazole, thiadiazole or tetrazole), it not being possible for each ring system to contain -O-O-, 45 -S—S— and —O—S-fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O) $NH(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3), 50$ $C(=S)N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, $\mathrm{C}_1\text{-}\mathrm{C}_6$ alkyl, $\mathrm{C}_1\text{-}\mathrm{C}_6$ haloalkyl, $\mathrm{C}_3\text{-}\mathrm{C}_6$ cycloalkyl, $\mathrm{C}_2\text{-}\mathrm{C}_6$ alkenyl, $\mathrm{C_2\text{-}C_6}$ haloalkenyl, $\mathrm{C_2\text{-}C_6}$ alkynyl, $\mathrm{C_2\text{-}C_6}$ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, 55 C₃-C₆ haloacycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R1 is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl; R^2 ', R^3 ', R^4 ' and R^5 ' are selected, independently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₁-C₄ alkylthio;

 $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, 65 NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O) $N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$,

 SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, benzyloxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1

fonyl and C_1 - C_6 haloalkylsulfonyl; $R^{15'}$ and $R^{16'}$ are independently selected from the group 10 consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄

haloalkyl and C_3 - C_6 cycloalkyl; each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄

15 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio;

haloalkyl, N—O—C₂-C₄ haloalkenyl, N—O-benzyl, N—Ophenyl, N-O-halophenyl, O wherein the N-O-benzyl and N-O-phenyl may be substituted by one or more groups 25 independently selected from the group consisting of halogen, methyl and halomethyl;

 $R^{27'}$, $R^{28'}$, $R^{29'}$, $R^{30'}$, $R^{31'}$, $R^{32'}$, $R^{33'}$, $R^{34'}$ and $R^{35'}$ are each independently selected from the group consisting of hydrogen, hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, 30 C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl, C_2 - C_4 haloalkenyl, cyano, benzyl and phenyl;

or R^{28'} and R^{29'} together with the two carbon atoms to

which they are attached form a double bond;
each R^{36'} is independently selected from hydrogen, halogen and C₁-C₄ alkyl;
R^{37'} and R^{38'} are selected independently of each other from

the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C_1 - C_4 haloalkyl; $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independent

 G^{17} is a five- to six-membered monocyclic heteroaromatic 40 dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of

each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and $\rm C_1$ - $\rm C_6$ haloalkylsulfonyl; $\rm R^{50^\circ}$ is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independent dently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy and

 $\rm C_1\text{-}C_4$ alkylthio; $\rm R^{57'}, R^{58'}, R^{59'}$ and $\rm R^{60'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O) $N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₂-C₆ alkoxy, C₂-C₆

haloalkoxy, phenyl, C3-C6 alkenyloxy, C3-C6 haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, benzyloxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen;

R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen, fluorine, cyano, C₁-C₄

alkyl and C_1 - C_4 haloalkyl; $R^{63'},\,R^{64'},\,R^{65'},\,R^{66'},\,R^{67'}$ and $R^{68'}$ are selected independent dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₁-C₄ haloalkoxy and C₁-C₄ alkylthio; R⁶⁹ is selected from bydrogen C₁-C₄ alkylthio;

is selected from hydrogen, C_1 - C_4 alkyl and C_1 - C_4 15 alkylcarboxy;

n is 0 or 1;

p and q are independently selected from 0 and 1;

r, s and t are independently selected from 0 and 1.

each C₁-C₄ alkyl;

R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, $\mathbf{C_1}\text{-}\mathbf{C_4}\text{ haloalkyl}, \mathbf{C_2}\text{-}\mathbf{C_4}\text{ alkenyl}, \mathbf{C_2}\text{-}\mathbf{C_4}\text{ alkynyl}, \mathbf{C_1}\text{-}\mathbf{C_4}\text{ alkoxy},$ C₃-C₆ cycloalkyl, C₁-C₄ alkylthio, C₁-C₄ alkylsulfinyl or C_1 - C_4 alkylsulfonyl;

R₄ is selected from methyl, ethyl, methoxy, fluorine and chlorine:

R₆ is hydrogen;

 R_7 is hydrogen or C_1 - C_4 alkyl.

In another group of compounds, R_1 and R_2 are each independently selected from methyl, ethyl and isopropyl;

R₃ represents hydrogen, halogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, cyclopropyl, ethynyl or C_1 - C_4 alkoxy;

R₄ is selected from methyl, methoxy, fluorine and chlorine;

R₆ is hydrogen;

 R_7 is hydrogen.

In another group of compounds, R_1 is methyl;

 R_2 is ethyl;

R₃ is selected from hydrogen, bromine, iodine, methyl, CHF₂, cyclopropyl, ethynyl and methoxy;

 R_4 is methyl;

R₆ is hydrogen;

R₇ is hydrogen.

In another group of compounds, G^1 is a C_9 - C_{10} fused bicyclic ring system which may be saturated or comprise one 45 carbon-carbon double bond and is optionally substituted by one or more groups independently selected from C₁-C₄ alkyl, fluorine, methoxy and C₁-C₄ fluoroalkyl;

G² is C₃-C₆ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, 50 ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tertbutyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH- $CH(CH_3)$ — CH_2 — CH_3 , $-CH_2-CH_2-CH(CH_3)-CH_3$, -CH(CH₃)-CH(CH₃) $_2$, $-CH_2$ — CH_2 — $CH(CH_3)_2$, C₂-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₁-C₄ fluoroalkyl, C₁-C₄ alkoxy and halogen;

G⁴ is C₅-C₆ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, 60 C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

 G^{5} is C_{3} - C_{7} cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH_3) — CH_2 — CH_2 — CH_3 , --CH---CH(CH₃)---CH₂-

 ${\rm CH_3, -\!CH_2\!-\!CH_2\!-\!CH_(CH_3)\!-\!CH_3, -\!CH_2\!-\!CH_2\!-\!CH_2}$ $(CH_3)_2$, — $CH(CH_3)$ — $CH(CH_3)_2$, C_2 - C_6 haloalkyl, C_1 - C_6 alkoxy, C₃-C₄-alkenyloxy, phenoxy and C₁-C₆ alkylthio;

G⁶ is phenyl, which must be substituted by at least one 5 fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, $C(=S)NH_2$, $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, SO_2NH_2 , SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C_3 - C_6 alkynyloxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and

 C_1 - C_6 alkylsulfonyl; G^{10} is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, phenyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, cyclopropyl, CH=CH₂, C(CH₃)=CH₂, CH=CH(CH₃), C(CH₃) =CH(CH₃), CH=C(CH₃)₂, C(CH₃)=C(CH₃)₂, CH=CF₂, In another group of compounds of formula I, R_1 and R_2 are 20 CH=CCl₂, C=CH, methoxy, ethoxy, iso-propyloxy, OCHF₂, OCH₂—C=CH, OCH(CH₃)—C=CH, SCH₃, SCH₂CH₃, S(=O)CH₃, S(=O)CH₂CH₃, S(=O)₂CH₃ and $S(=O)_2CH_2CH_3;$

> G¹¹ is methylene substituted by at least one group indepen-25 dently selected from C₁-C₄ alkyl, C₁-C₄ haloalkyl, CN, C₁-C₄ alkoxy and C₁-C₄ haloalkoxy;

G¹³ is a C₈-C₁₁ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C_1 - C_6 alkylthio and \Longrightarrow O;

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S (for example, 35 pyridine, pyrimidine, furan, pyrrole, thiazole, oxazole, pyrazole, imidazole, oxadiazole, thiadiazole or tetrazole), it not being possible for each ring system to contain —O—O— -S—S— and —O—S-fragments, and it being possible for the five- to six-membered ring system to be itself mono- or 40 polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O) $NH(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3),$ $C(=S)N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R^{1'} is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 alkyl and C_1 - C_4 fluoroalkyl; R^2 ', R^3 ', R^4 ' and R^5 ' are selected, independently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio;

R¹¹, R¹², R¹³ and R¹⁴ are selected, independently of each other, from the group consisting of hydrogen, cyano, halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alky-

R¹⁵', R¹⁶', R¹⁷', R¹⁸', R¹⁹', R²⁰', R²¹' and R²²' are independently selected from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃ and CF₂CF₃;

 R^{23} , R^{24} and R^{25} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio;

enyl, $N-O-C_2-C_4$ alkynyl, $N-O-C_1-C_4$ haloalkyl, N—O—C₂-C₄ haloalkenyl, N—O-benzyl, N—O-phenyl,

N—O-halophenyl, O, or $C(R^{36'})_2$; $R^{27'}$, $R^{28'}$, $R^{29'}$, $R^{30'}$, $R^{31'}$, $R^{32'}$, $R^{33'}$, $R^{34'}$ and $R^{35'}$ are each 5 independently selected from the group consisting of hydro-

gen, hydroxyl, C_1 - C_4 alkyl, C_1 - C_4 alkoxy and halogen; or $R^{28'}$ and $R^{29'}$ together with the two carbon atoms to which they are attached form a double bond;

each R³⁶ is independently selected from hydrogen, halo- 10 gen and C1-C4 alkyl;

 $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independently of each other from a group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroet- 15 hyl;

R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, C = CH, $CH = CH_2$, $C(CH_3) = CH_2$, CF_3 , CHF_2 , CH_2F , 20 —CHF—CH₃, —CF₂—CH₃, methoxy, difluoromethoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{50'} is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independent dently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy and C₁-C₄ haloalkoxy;

 R^{57} , R^{58} , R^{59} and R^{60} are selected, independently of each 30 other, from the group consisting of hydrogen, cyano, halogen, C_1 - C_6 alkyl and C_1 - C_6 haloalkyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

R⁶¹ and R⁶² are selected independently of each other from 35 the group consisting of hydrogen, fluorine, cyano, C₁-C₄

alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independent dently of each other from the group consisting of hydrogen,

and C_1 - C_4 haloalkoxy; R^{69° is selected from hydrogen, C_1 - C_4 alkyl and C_1 - C_4 alkylcarboxy;

n is 0 or 1;

p and q are independently selected from 0 and 1;

r and s are 0 and t is 1 or 0.

In another group of compounds, G^1 is a saturated C_{10} fused bicyclic ring system which is optionally substituted by one or more groups independently selected from C₁-C₄ alkyl, fluorine, methoxy and C₁-C₄ fluoroalkyl;

G² is a C₅-C₆ cycloalkenyl group optionally substituted by one or more fluorine atoms;

G³ is phenyl, which is optionally substituted by one or more groups independently selected from C₁-C₄ alkyl, CHF₂, CF₃, C₁-C₄ alkoxy and halogen;

G⁴ is C₅-C₆ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy and

G⁵ is C₅-C₆ cycloalkyl, which is substituted by one or more 60 groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH_3) — CH_2 — CH_2 — CH_3 , —CH—CH(CH₃)—CH₂ CH_3 , $-CH_2$ $-CH_2$ $-CH_3$, $-CH_3$, $-CH_2$ $-CH_3$ $(CH_3)_2$, $-CH(CH_3)$ - $CH(CH_3)_2$ and C_2 - C_6 haloalkyl;

G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more 44

groups independently selected from halogen, CN, C1-C4 alkyl, C_1 - C_4 haloalkyl and C_1 - C_4 alkoxy.

G⁷ is methylene;

G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from hydrogen, halogen, CN, OH, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF_3 , CHF— CH_3 , CF_2 — CH_3 , CF_2 — CF_3 , CH= CH_2 , $C(CH_3) = CH_2$ $CH = CH(CH_3), \quad C(CH_3) = CH(CH_3),$ CH=C(CH₃)₂, C(CH₃)=C(CH₃)₂, CH=CF₂, CH=CCl₂, C=CH, methoxy, ethoxy, iso-propyloxy, phenyl and

G¹¹ is methylene substituted by at least one group independently selected from C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ alkoxy;

 G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C_1 - C_6 alkylthio and \Longrightarrow O;

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S it not being possible for each ring system to contain -- O--O--S—S— and —O—S— fragments, and it being possible for 25 the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or benzyl, wherein the phenyl or benzyl are optionally substituted by halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl;

R1 is selected from the group consisting of hydrogen, fluorine, methyl, CH₂F and CF₃;

R2', R3', R4' and R5' are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, CH₂F, CF₃ and methoxy;

R¹¹', R¹²', R¹³' and R¹⁴' are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, CHF₂, CF₃ and C₁-C₄ alkoxy;

 $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are each fluorine, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy 40 independently selected from hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃ and isopropyl;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are independently selected from the group consisting of hydrogen, methyl, fluorine, chlorine, bromine, ethyl, CH₂F, CHF₂ and CF₃ and isopropyl;

 R^{26} is N—OH, N—O— C_1 - C_4 alkyl, N—O— C_2 - C_4 alkenyl, N—O—C₂-C₄ alkynyl, N—O—C₁-C₄ haloalkyl, N—O—C₂-C₄ haloalkenyl, N—O-benzyl, N—O-phenyl, N—O-halophenyl, O, C_2 - C_4 alkenyloxy or $C(R^{36'})$; $R^{27'}$, $R^{28'}$, $R^{29'}$, $R^{30'}$, $R^{31'}$, $R^{32'}$, $R^{33'}$, $R^{34'}$ and $R^{35'}$ are each

50 independently selected from the group consisting of hydrogen, C_1 - C_4 alkyl and halogen; or $R^{28'}$ and $R^{29'}$ together with the two carbon atoms to

which they are attached form a double bond;

each R³⁶ is independently selected from hydrogen, halo-

gen and C_1 - C_4 alkyl; $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are independent dently selected from the group consisting of hydrogen, fluorine, methyl and trifluoromethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, C = CH, $CH = CH_2$, $C(CH_3) = CH_2$, CF_3 , CHF_2 , CH_2F , -CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{50'}, R^{51'}, R^{52'}, R^{53'}, R^{54'}, R^{55'} and R^{56'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, CH₂F and CF₃;

 $R^{57^{\prime}}, R^{58^{\prime}}, R^{59^{\prime}}$ and $R^{60^{\prime}}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, CHF₂ and CF₃;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

 $R^{61^{T}}$ and $R^{62'}$ are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, CHF2 and CF3;

R⁶²', R⁶³', R⁶⁴', R⁶⁵', R⁶⁶', R⁶⁷' and R⁶⁸' are selected independently of each of there from the group consisting of hydro- 10 gen, fluoro, methyl, ethyl, methoxy, difluoromethoxy, trifluoromethoxy, CHF2 and CF3;

 R^{69} is selected from hydrogen and C_1 - C_4 alkyl; n is 0 or 1:

p and q are independently selected from 0 and 1; r and s are 0 and t is 1 or 0.

In another group of compounds, G^1 is a saturated C_{10} fused bicyclic ring system;

 G^2 is a C_5 - C_6 cycloalkenyl group;

 G^3 is phenyl:

G⁴ is cyclohexyl or cyclopentyl;

G⁵ is C₆ cycloalkyl, which is substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH $(CH_3)_2$ and $-CH(CH_3)$ $-CH(CH_3)_2$;

G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more methyl, bromine, iodine or chlorine;

G⁷ is methylene;

G10 is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, methyl, ethyl, n-propyl, iso-propyl, ethenyl, methoxy, ethoxy, iso-propyloxy, phenyl, CHF₂, CF₃, CHF—CH₃ and OCHF₂; 35

G¹¹ is methylene substituted by at least one group independently selected from methyl, CF3 and ethyl;

 G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently 40 selected from halogen, C₁-C₄ alkyl, C₁-C₄ alkoxy and =O;

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 or 2 members selected from the group consisting of N, O and S, it not being possible for each ring system to contain -O-O-, -S-S- and 45 -O-S- fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or fluorophenyl;

R¹', R²', R³', R⁴' and R⁵' are each hydrogen; R¹¹', R¹²', R¹³' and R¹⁴' are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano,

 $\begin{array}{c} C_1\text{-}C_4 \text{ alkyl and } C_1\text{-}C_4 \text{ alkoxy;} \\ R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}, R^{22'}, R^{23'}, R^{24'} \text{ and } R^{25'} \end{array} \ 55$ are each independently selected from hydrogen, methyl, ethyl

R²³, R²⁴ and R²⁵ are each independently selected from hydrogen, fluorine, chlorine, bromine, methyl, ethyl and isopropyl;

 $R^{26'}$ is N—OH, N—O— C_1 - C_4 alkyl, N—O— C_2 - C_4 alkenyl, $N-O-C_2-C_4$ alkynyl, $N-O-C_1-C_4$ haloalkyl, N-O-benzyl, N-O-phenyl,

N—O-halophenyl, O, C_2 - C_4 alkenyloxy and $C(R^{36'})$; $R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'}$ and $R^{35'}$ are each 65 hydrogen or methyl; or R²⁷ and R²⁸ together with the two carbon atoms to which they are attached form a double bond;

each R36' is independently selected from hydrogen, halogen and C_1 - C_4 alkyl;

R³⁷', R³⁸', R³⁹', R⁴⁰', R⁴¹', R⁴²', R⁴³' and R⁴⁴' are hydrogen; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are independently selected from the group consisting of hydrogen, fluorine, chlorine, methyl, CF₃, CHF₂, CH₂F, methoxy, difluoromethoxy and trifluoromethoxy;

 $R^{50'}$, $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are each hydrogen; R⁵⁷', R⁵⁸', R⁵⁹' and R⁶⁰' are selected, independently of each other, from the group consisting of hydrogen and halogen; provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

R⁶¹, R⁶², R⁶³, R⁶⁴, R⁶⁵, R⁶⁶, R⁶⁷ and R⁶⁸ are hydrogen;

R⁶⁹ is hydrogen;

n is 0 or 1;

p and q are independently selected from 0 and 1; r, s and t are each 0.

In another preferred group of compounds, R⁵ is G¹. In another preferred group of compounds, R⁵ is G². In another preferred group of compounds, R⁵ is G³-G⁴. In another preferred group of compounds, R⁵ is G⁵. In another preferred group of compounds, R⁵ is G⁶-G⁷. In another preferred group of compounds, R⁵ is G⁸. In another preferred group of compounds, R⁵ is G⁹. In another preferred group of compounds, R⁵ is G¹⁰-G¹¹. In another preferred group of compounds, R⁵ is G¹². In another preferred group of compounds, R⁵ is G¹³ In another preferred group of compounds, R⁵ is G¹⁴. In another preferred group of compounds, R⁵ is G¹⁵.

In another preferred group of compounds, R⁵ is G¹⁶. In a further group of compounds, R_1 is selected from R^{1a} and R^{1b} ;

R₂ is methyl;

 R_3 is selected from R^{3a} , R^{3b} , R^{3c} , R^{3d} , R^{3e} , R^{3f} , R^{3g} , R^{3h} , $\mathbf{R}^{3i}, \mathbf{R}^{3j}, \mathbf{R}^{3k}, \mathbf{R}^{3l}, \mathbf{R}^{3m}, \mathbf{R}^{3n}, \mathbf{R}^{3o}, \mathbf{R}^{3p}, \mathbf{R}^{3q}, \mathbf{R}^{3r}, \mathbf{R}^{3s}, \mathbf{R}^{3t};$

 $\begin{array}{l} R_{,k}^{5}, R_{,j}^{5}, R_{,j}^{5},$ R^{5jj} , R^{5kk} , R^{5ll} , R^{5mm} , R^{5nn} , R^{5oo} , R^{5pp} , R^{5qq} , R^{5rr} , R^{5ss} , R^{5tt} R^{5uu} , R^{5vv} , R^{5ww} , R^{5xx} , R^{5zz} , R^{5ba} , R^{5bc} , R^{5bd} , R^{5be} , R^{5bf} , $R^{5bq}, R^{5br}, R^{5bs}, R^{5bt}, R^{5bu}, R^{5bu}, R^{5bv}, R^{5bx}, R^{5by}, R^{5bz}, R^{5ca}$ R^{5cb}, R^{5cd}, R^{5ce}, R^{5cf}, R^{5cg}, R^{5bh}, R^{5ci}, R^{5cj}, R^{5ck}, R^{5cl}, R^{5cm} R^{5cn} , R^{5co} , R^{5cp} , R^{5cq} , R^{5cr} , R^{5cs} , R^{5ct} , R^{5cu} , R^{5cv} , R^{5cw} , R^{5cx} $\mathbf{R}^{5cy}, \mathbf{R}^{5cz}, \mathbf{R}^{5da}, \mathbf{R}^{5db}, \mathbf{R}^{5dc}, \mathbf{R}^{5de}, \mathbf{R}^{5df}, \mathbf{R}^{5dg}, \mathbf{R}^{5dh}, \mathbf{R}^{5di}, \mathbf{R}^{5dj}$ $\begin{array}{lll} R^{5dk}, R^{5dl}, R^{5dm}, R^{5dn}, R^{5do}, R^{5dp}, R^{5q}, R^{5dr}, R^{5ds}, R^{5dt}, R^{5dt}, R^{5ds}, R^{5dt}, R^{5ds}, R^{5ds}, R^{5dt}, R^{5ds}, R^{5$ R^{5eu}, R^{5ev}, R^{5ex}, R^{5ey}, R^{5ez}, R^{5fa}, R^{5fb}, R^{5fc}, R^{5fd}, R^{5fe}, R^{5fg} R^{5fh} , R^{5fi} , R^{5fi} , R^{5fk} , R^{5fk} , R^{5fi} , R^{5fm} , R^{5fn} , R^{5fo} , R^{5fo} , R^{5fq} , R^{5fi} , R^{5fs} R^{5ft} , R^{5fu} , R^{5fv} , R^{5fw} ;

 R_6 is selected from R^a , R^b and R^c ;

 R^{1a} is selected from ethyl and isopropyl; R^{1b} is ethyl;

R^{3a} is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, CCH, CH=CH₂, H₂C=C-(CH₃), cyclopropyl, halomethyl, haloethyl, methoxy, halomethoxy, ethoxy, haloethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl, amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO, CH₂OH, CH(OH)Me and CO-Me;

R^{3b} is selected from hydrogen, F, Cl, Br, I, cyano, methyl, ethyl, isopropyl, fluoromethyl, difluoromethyl, trifluoromethyl, (H₃C)—CHF, methoxy and ethoxy;

R^{3c} is selected from hydrogen, F, Br, I, methyl, ethyl, isopropyl, fluoromethyl, difluoromethyl, trifluoromethyl, (H_2C) —CHF, methoxy and ethoxy:

R^{3d} is selected from hydrogen, halogen, cyano, methyl, ethyl, isopropyl, C=CH, CH=CH₂, H₂C=C-(CH₃), cyclopropyl, halomethyl, haloethyl, methoxy, ethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl,

amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO and CO-Me;

R^{3b} is selected from hydrogen, F, Cl, Br, I, cyano, methyl, ethyl, isopropyl, fluoromethyl, difluoromethyl, trifluoromethyl, (H₃C)—CHF, methoxy and ethoxy;

R^{3c} is selected from hydrogen, F, Br, I, methyl, ethyl, isopropyl, fluoromethyl, difluoromethyl, trifluoromethyl, 20 (H₃C)—CHF, methoxy and ethoxy;

R^{3e} is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, ethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfo- 25 nyl, halomethylsulfonyl, amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO, CH2OH, CH(OH) Me and CO-Me:

R³f is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{3g} is selected from hydrogen, F, Br, I, methyl, ethyl, 35 ethyl and polyfluoromethyl isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

 R^{3h} is selected from hydrogen, Br. I, methyl, ethyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F and methoxy; 40

R³ⁱ is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, ethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl, amino, methylamino, dimethy- 45 lamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO and CO-Me;

R^{3j} is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, halomethyl, haloethyl, methoxy and ethoxy;

R^{3k} is selected from hydrogen, halogen, methyl, ethyl, iso- 50 propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, methoxy and ethoxy;

R³⁷ is selected from hydrogen, halogen, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, methoxy and ethoxy:

 \mathbb{R}^{3m} is selected from hydrogen, F, Br, I, methyl, ethyl, CHF₂ and methoxy;

R³ⁿ is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, ethoxy, methlythio, halom- 60 ethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl, amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO, CH2OH, CH(OH) Me and CO-Me:

R³⁰ is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂,

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halomethyl, haloethyl, methoxy, ethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl and halomethylsulfonyl;

R^{3p} is selected from hydrogen, F, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH $_2$, C(CH $_3$)=CH $_2$, halomethyl, haloethyl, methoxy and ethoxy;

 R^{3q} is selected from hydrogen, F, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{3r} is selected from hydrogen, Br, I, methyl, cyclopropyl, C = CH, $CH = CH_2$, CF_3 , CHF_2 , CH_2F , $-CHF - CH_3$, $-CF_2$ — CH_3 and methoxy;

R^{3s} is selected from hydrogen, halogen, CN, methyl, ethyl, 15 isopropyl, cyclopropyl, tert-butyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, halomethoxy, ethoxy, haloethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl, amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO and C(=O)Me;

R^{3t} is selected from hydrogen, halogen, CN, methyl, ethyl, isopropyl, cyclopropyl, tert-butyl, C=CH, CH=CH₂, C(CH₃)=CH₂, halomethyl, haloethyl, methoxy, halomethoxy, ethoxy, haloethoxy, methlythio, halomethylthio, methylsulfinyl, halomethylsulfinyl, methylsulfonyl, halomethylsulfonyl, amino, methylamino, dimethylamino, ethylamino, diethylamino, ethylmethylamino, pyrrolidino, imidazolino, triazolino, CHO and C(=O)Me;

 R_{4a} is selected from F, Cl, Br, C_1 - C_4 alkyl, C_1 - C_4 alkenyl, C_1 - C_4 haloalkyl and C_1 - C_4 cycloalkyl;

R_{4b} is selected from F, Cl, methyl, ethyl, ethenyl, propyl, propenyl, isopropyl, isopropenyl, cyclopropanyl, methoxy, ethoxy, monofluoromethyl, polyfluoromethyl, monofluoro-

R_{4c} is selected from methyl, ethyl, methoxy, F and Cl;

R_{4d} is selected from methyl, methoxy, F and Cl;

R_{4e} is selected from methyl;

 R_{4f} is selected from methoxy, F and Cl;

 R^{5a} is a 3- to 6-membered cycloalkenyl group, or a 3- to 6-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH_3) — CH_2 — CH_2 — CH_3 , —CH—CH(CH₃)—CH₂- CH_3 , $-CH_2$ — CH_2 — $CH(CH_3)$ — CH_3 , $-CH_2$ — CH_2 — CH_2 $(\mathrm{CH_3})_2, \quad -\mathrm{CH}(\mathrm{CH_3}) - \mathrm{CH}(\mathrm{CH_3})_2, \quad \mathrm{C_1\text{-}C_6} \text{ haloalkyl}, \quad \mathrm{C_3\text{-}C_6}$ cycloalkyl, $\mathrm{C_3\text{-}C_6}$ halocycloalkyl, $\mathrm{C_2\text{-}C_6}$ alkenyl, $\mathrm{C_2\text{-}C_6}$ haloalkenyl, C₁-C₆alkoxy, C₁-C₆ haloalkoxy, C₂-C₇ alkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_4 - C_7 alkenyloxycarbonyl, C_4 C_7 alkynyloxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, $-C(=O)NH_2$, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$;

 $R^{\hat{5}b}$ is a 3- to 6-membered cycloalkenyl group, or a 3- to 6-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH₄—CH₂—CH₂—CH₂—CH₂—CH₂—CH₃, —CH₂—CH alkoxy and C₁-C₆ alkylthio;

R^{5c} is a 3- to 6-membered cycloalkenyl group, or a 3- to 6-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH₃)—CH₃, —CH₂—CH₂—CH (CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₁-C₆-fluoroalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R^{5d} is a 5-membered cycloalkenyl group, or a 5-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO2, OH, SH, CHO, COOH, tri(C1-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂ CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ -CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_2 - C_7 alkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ $-C(=O)NH_2$ alkylsulfonyl, $-C(=O)NH(CH_3),$ $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$;

 R^{5e} is a 5-membered cycloalkenyl group, or a 5-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH(CH₃)—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH(CH₃), —CH(CH₃)—CH(CH₃), —CH(CH₃), —CH(CH₃), alkoythio;

R⁵f is a 5-membered cycloalkenyl group, or a 5-membered 30 cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₃ —CH₂—CH₃ 35 (CH₃)—CH₃, —CH₂—CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₁-C₆-fluoroalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R^{59g} is a 6-membered cycloalkenyl group, or a 6-membered cycloalkenyl group that can be mono- to polysubsti- 40 tuted by substituents independently selected from the group consisting of halogen, CN, NO2, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂- $-CH-CH(CH_3)-CH_2-CH_3$ CH_2 — CH_3 , -CH₂ CH_2 — $CH(CH_3)$ — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, —CH (CH_3) — $CH(CH_3)_2$, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C₄ C₇ alkenyloxycarbonyl, C₄ C₇ alkyny- 50 loxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, $-C(=O)NH_2$ $-C(=O)NH(CH_3),$ $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$;

R^{\$h} is a 6-membered cycloalkenyl group, or a 6-membered cycloalkenyl group that can be mono- to polysubstituted by 55 substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH (CH₃)—CH₃, —CH₂—CH₂—CH (CH₃)—CH₂—CH₂—CH(CH₃)—60 CH(CH₃)₂, C₁-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R^{5j} is a 6-membered cycloalkenyl group, or a 6-membered cycloalkenyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—

CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₁-C₆ fluoroalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

 \dot{R}^{5k} is a 3- to 7-membered cycloalkyl group, or a 3- to 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH (CH₃)—CH₂—CH (CH₃)—CH₂—CH (CH₃)—CH₂—CH (CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ alkylsulfinyl, C₁-C₆ alkylsulfonyl, —C(=O)NH₂, —C(=O)NH (CH₃), —C(=O)N(CH₃)₂ and —C(=S)NH₂;

R⁵¹ is a 3- to 7-membered cycloalkyl group, or a 3- to 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH (CH₃)—CH₂—CH₂—CH (CH₃)—CH₂—CH₂—CH (CH₃)₂, —CH₂—CH₂—CH (CH₃)₂, C₁-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R^{5m} is a 3- to 7-membered cycloalkyl group, or a 3- to 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH (CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH (CH₃)—CH₂—CH₂—CH (CH₃)—CH₂—CH₂—CH (CH₃)₂, —CH₂—CH₂—CH (CH₃)₂, C₁-C₆-fluoroalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R⁵ⁿ is a 3-membered cycloalkyl group, or a 3-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₄—CH₄—CH₂—CH₄—CH

R^{so} is a 3-membered cycloalkyl group, or a 3-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₄, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH₄—CH₄, —CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH(CH₃)—CH(CH₃)—CH(CH₃), —CH(CH₃)—CH(CH₃), —CH(CH₃), alkylthio;

R^{5p} is a 3-membered cycloalkyl group, or a 3-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH

(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)— CH(CH₃)₂, C_1 - C_6 fluoroalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio;

 R^{5q} is a 4-membered cycloalkyl group, or a 4-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO2, OH, SH, CHO, COOH, tri(C1-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂-CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ -CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C1-C6 alkylcarbonyl, 15 C_1 - C_6 haloalkoxy, C_2 - C_7 C₂-C₇alkoxycarbonyl, C₄ C₇ alkenyloxycarbonyl, C₄ C₇ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C_1 - C_6 alkylsulfonyl, $-C(=O)NH_2$, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$;

 R^{5r} is a 4-membered cycloalkyl group, or a 4-membered 20 cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH_3)—CH_2—CH_2—CH_3, —CH—CH(CH_3)—CH_2—CH_2—CH_2—CH_2—CH_2—CH_2—CH(CH_3)—CH_2—CH_2—CH(CH_3)_2, —CH(CH_3)—CH(CH_3)_2, C_1-C_6 haloalkyl, C_1-C_6 alkoxy and C_1-C_6 alkylthio;

 ${R}^{ss}$ is a 4-membered cycloalkyl group, or a 4-membered cycloalkyl group that can be mono- to polysubstituted by 30 substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, $-CH(CH_3)-CH_2-CH_2-CH_3$, $-CH-CH(CH_3)-CH_2-CH_3$, $-CH_2-CH_2-CH_3$, $-CH_2-CH_3$, $-CH_2-CH_3$, $-CH_3$,

Ř⁵′ is a 5-membered cycloalkyl group, or a 5-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH (CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)—45 CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₇ alkylcarbonyl, C₂-C₇alkoxycarbonyl, C₄ C₇ alkenyloxycarbonyl, C₄ C₇ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, 50 C₁-C₆ alkylsulfonyl, —C(—O)NH₂, —C(—O)NH(CH₃), —C(—O)N(CH₃)₂ and —C(—S)NH₂;

 $R^{\hat{s}u}$ is a 5-membered cycloalkyl group, or a 5-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, see-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH(CH₃)—CH₂—CH(CH₃)—CH₂—CH(CH₃)—CH₂—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH(CH₃)—CH(CH₃)—CH₂—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH₂—CH₂—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH₂

R^{5v} is a 5-membered cycloalkyl group, or a 5-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH

(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C_1 -C₆ fluoroalkyl, C_1 -C₆ alkoxy and C_1 -C₆ alkylthio;

 R^{5x} is a 6-membered cycloalkyl group, or a 6-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂ CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ -CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 C_1 - C_6 haloalkoxy, C_2 - C_7 alkylcarbonyl, C₂-C₇alkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C_1 - C_6 alkylsulfonyl, $-C(=O)NH_2$, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2$;

R^{5y} is a 6-membered cycloalkyl group, or a 6-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH₄—CH₂—CH₄—CH₂—CH₄—CH₂—CH₄—CH₄—CH(CH₃)—CH₄—CH₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

R^{5z} is a 6-membered cycloalkyl group, or a 6-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH₄—CH₄—CH₂—CH₂—CH₄—CH₄—CH₄—CH₄—CH(CH₃)—CH₂—CH₂—CH₄—CH(CH₃)—CH(CH₃)—CH₄

R^{5ab} is a 7-membered cycloalkyl group, or a 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆ alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, secbutyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, -CH $-CH(CH_3)$ $-CH_2$ $-CH_3$, --CH₂---CH₂---CH $-CH_2-CH_2-CH(CH_3)_2$, (CH_3) — CH_3 , --CH(CH3)-CH(CH₃)₂, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₅ haloalkoxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ alkynyloxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, $-C(=O)NH_2$, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and $-C(=S)NH_2;$

R^{\$ac} is a 7-membered cycloalkyl group, or a 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₄—CH₂—CH₄—CH₂—CH₄—CH₄—CH₂—CH(CH₃)—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH₂—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH₂—CH₂—CH₂—CH₂—CH(CH₃)—CH(CH₃)—CH₂—

R^{5ad} is a 7-membered cycloalkyl group, or a 7-membered cycloalkyl group that can be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH₂—CH

 (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$, — $CH(CH_3)$ — $CH(CH_3)_2$, C_1 - C_6 fluoroalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio:

R^{5ae} is G⁸ wherein R¹, R², R³, R⁴ and R⁵ are each independently selected from hydrogen, fluoro, C₁-C₄ alkyl, C₁-C₄ baloalkyl, C₂-C₄ alkoxy and C₂-C₄ alkylthio:

haloalkyl, C₁-C₄ alkoxy and C₁-C₄ alkylthio; and wherein R¹¹', R¹²', R¹³' and R¹⁴' are each independently selected from hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, 10 SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ alkylthio, 15 C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl; R^{5af} is G⁸ wherein R¹', R²', R³', R⁴' and R⁵' are each inde-

 R^{3ay} is G^8 wherein R^1 , R^2 , R^3 , R^4 and R^3 are each independently selected from hydrogen, fluoro, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio:

haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio; and wherein $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are each independently selected from hydrogen, halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio;

 $R^{5\,ag}$ is G^8 wherein $R^{1'}$, $R^{2'}$, $R^{3'}$, $R^{4'}$ and $R^{5'}$ are each independently selected from hydrogen, fluoro, methyl, ethyl, 25 CH_2F , CHF_2 , CF_3 , CHF_CH_3 , $CF_2_CH_3$, methoxy, ethoxy, S_CH_3 and $S_CH_2CH_3$;

and wherein $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are each independently selected from hydrogen, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio;

haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio; R^{5ah} is G^8 wherein R^1 ', R^2 ', R^3 ', R^4 ' and R^5 ' are each independently selected from hydrogen, fluoro, methyl, CHF_2 , CF_3 and methoxy;

and wherein R^{11'}, R^{12'}, R^{13'} and R^{14'} are each independently selected from hydrogen, halogen, CN, NO₂, OH, SH, 35 CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ haloalkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

sulfinyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl; R^{5aj} is G^8 wherein R^1 , R^2 , R^3 , R^4 and R^5 are each independently selected from hydrogen, fluoro, methyl, CHF₂, CF, and methoxy:

and wherein $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are each independently selected from hydrogen, halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio;

R^{5ak} is G⁸ wherein R¹, R², R³, R⁴ and R⁵ are each independently selected from hydrogen, fluoro, methyl, CHF₂, CF₃ and methoxy;

and wherein $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are each independently selected from hydrogen, halogen, C_1 - C_4 alkyl, C_1 - C_4 55 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio;

 R^{5al} is G^{8} wherein $R^{1'}$, $R^{2'}$, $R^{3'}$, $R^{4'}$ and $R^{5'}$ are each hydrogen:

and wherein R^{11'}, R^{12'}, R^{13'} and R^{14'} are each independently selected from hydrogen, halogen, CN, NO₂, OH, SH, 60 CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, 65 C₃-C₆ alkenyloxy, C₃-C₆ haloalkoxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio,

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 $C_1\text{-}C_6$ haloalkylthio, $C_1\text{-}C_6$ alkylsulfinyl, $C_1\text{-}C_6$ haloalkylsulfinyl, $C_1\text{-}C_6$ alkylsulfonyl and $C_1\text{-}C_6$ haloalkylsulfonyl;

 R^{5am} is G^8 wherein $R^{1'}$, $R^{2'}$, $R^{3'}$, $R^{4'}$ and $R^{5'}$ are each hydrogen:

and wherein R¹¹′, R¹²′, R¹³′ and R¹⁴′ are each independently selected from hydrogen, halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ alkylthio;

haloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 alkylthio; R^{5aa} is G^8 wherein R^1 , R^2 , R^3 , R^4 and R^5 are each hydrogen:

and wherein $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are each independently selected from hydrogen, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio;

R^{5bb} is a benzyl group, wherein the phenyl ring is substituted by at least one fluorine and optionally by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH (CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N (CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R^{5cc} is a benzyl group, wherein the phenyl ring is substituted by at least one fluorine and optionally by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH₄ (CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N (CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl:

R^{5dd} is a benzyl group, wherein the phenyl ring is substituted by at least one fluorine and optionally by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkenyl, C₁-C₆ alkynyl, C₁-C₆ alkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy and C₁-C₆ alkylthio; R^{5ee} is a benzyl group, wherein the phonyl group wherein the phonyl group.

R^{5ee} is a benzyl group, wherein the phenyl ring is substituted by at least one fluorine and optionally by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl and C₁-C₄ alkoxy;

R⁵ is a benzyl group, wherein the methylene portion is substituted by at least one group independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, CN, C₁-C₄ alkoxy and C₁-C₄ haloalkoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S) NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH₄ (CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkylshino, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

 R^{5gg} is a benzyl group, wherein the methylene portion is substituted by at least one group independently selected from the group consisting of hydrogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_1 - C_4 alkoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, $C(=O)NH_2$, $C(=O)NH(CH_3)$, $C(=O)N(CH_3)_2$, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH $\begin{array}{l} (CH_3),\ SO_2N(CH_3)_2,\ C_1\text{-}C_6\ alkyl,\ C_1\text{-}C_6\ haloalkyl,\ C_3\text{-}C_6\ cycloalkyl,\ C_2\text{-}C_6\ alkenyl,\ C_2\text{-}C_6\ haloalkenyl,\ C_2\text{-}C_6\ alkynyl, \end{array}$ $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy, $C_3\text{-}C_6$ alkenyloxy, $C_3\text{-}C_6$ alkynyloxy, $C_3\text{-}C_6$ eycloalkoxy, $C_3\text{-}C_6$ halocycloalkoxy, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ haloalkylthio, $C_1\text{-}C_6$ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

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 R^{5hh} is a benzyl group, wherein the methylene portion is substituted one group independently selected from the group consisting of C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_1 - C_4 alkoxy; 15 and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO2, OH, SH, CHO, $C(=O)NH_2$, $C(=O)NH(CH_3)$, $C(=O)N(CH_3)_2$, C(=S) (CH_3) , $SO_2N(CH_3)_2$, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, $\rm C_2\text{-}C_6$ haloalkynyl, $\rm C_1\text{-}C_6$ alkoxy, $\rm C_1\text{-}C_6$ haloalkoxy, $\rm C_3\text{-}C_6$ alkenyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, $\rm C_3\text{-}C_6$ halocycloalkoxy, $\rm C_1\text{-}C_6$ alkylthio, $\rm C_1\text{-}C_6$ $\,$ 25 haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl

 R^{5jj} is a benzyl group, wherein the methylene portion is substituted by one group independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl 30 and C_1 - C_4 alkoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, NH_2 , $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, SO_2NH_2 , SO_2NH (CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halocycloalkoxy, 40 C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl;

 R^{5kk} is a benzyl group, wherein the methylene portion is substituted one group independently selected from the group 45 consisting of methyl, ethyl, CHF₂, CF₃ and methoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, $C(=\!\!\!=\!\!\!O)NH_2,\ C(=\!\!\!=\!\!\!O)NH(CH_3),\ C(=\!\!\!=\!\!\!O)N(CH_3)_2,\ C(=\!\!\!=\!\!\!S)$ NH_2 , $C(=S)NH(CH_3)$, $C(=S)N(CH_3)_2$, SO_2NH_2 , SO_2NH (CH_3) , $SO_2N(CH_3)_2$, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ 55 cycloalkoxy, $\mathrm{C_3\text{-}C_6}$ halocycloalkoxy, $\mathrm{C_1\text{-}C_6}$ alkylthio, $\mathrm{C_1\text{-}C_6}$ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, ${\rm C_1\text{-}C_6}$ alkylsulfonyl and ${\rm C_1\text{-}C_6}$ haloalkylsulfonyl; ${\rm R}^{5ll}$ is a benzyl group, wherein the methylene portion is

substituted by one group independently selected from the 60 group consisting of methyl, ethyl, CHF₂, CF₃ and methoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, $C(=O)NH_2$, $C(=O)NH(CH_3)$, $C(=O)N(CH_3)_2$, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH (CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆

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cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

 R^{5mm} is a benzyl group, wherein the methylene portion is substituted by at least one group independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, CN, C₁-C₄ alkoxy and C₁-C₄ haloalkoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, OH, SH, CHO C₁-C₆ alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl;

 R^{5m} is a benzyl group, wherein the methylene portion is NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH 20 substituted one group independently selected from the group consisting of C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ alkoxy; and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, OH, SH, CHO C, C6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl;

> R^{oo} is a benzyl group, wherein the methylene portion is substituted one group independently selected from the group consisting of methyl, ethyl, CHF₂, CF₃ and methoxy;

> and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, OH, SH, CHO C, C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl;

> R^{5pp} is a benzyl group, wherein the methylene portion is substituted by at least one group independently selected from the group consisting of hydrogen, C1-C4 alkyl, C1-C4 haloalkyl, CN, C1-C4 alkoxy and C1-C4 haloalkoxy;

> and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, cyclopropyl, CH=CH₂, C(CH₃) =CH₂, CH=CH(CH₃), C(CH₃)=CH(CH₃), CH= $C(CH_3)_2$, $C(CH_3)=C(CH_3)_2$, $CH=CF_2$, $CH=CCl_2$, C=CH, methoxy, ethoxy, iso-propyloxy, OCHF₂, OCH₂ C = CH, $OCH(CH_3) - C = CH$, SCH_3 , SCH_2CH_3 , S(=O)CH₃, S(=O)CH₂CH₃, S(=O)₂CH₃ and S(=O)₂CH₂CH₃;

> R^{5qq} is a benzyl group, wherein the methylene portion is substituted one group independently selected from the group consisting of C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ alkoxy; and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group consisting of hydrogen, halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, $\begin{array}{llll} & CF_2-\!\!-\!CH_3, & CF_2-\!\!-\!CF_3, & cyclopropyl, & CH=\!\!-\!CH_2, & C(CH_3)\\ =\!\!-\!CH_2, & CH=\!\!-\!CH(CH_3), & C(CH_3)=\!\!-\!CH(CH_3), & CH=\!\!-\!CH(CH_3), & CH=\!\!$ $C(CH_3)_2$, $C(CH_3)=C(CH_3)_2$, $CH=CF_2$, $CH=CCl_2$, C≡CH, methoxy, ethoxy, iso-propyloxy, OCHF₂, OCH₂-C = CH, $OCH(CH_3) - C = CH$, SCH_3 , SCH_2CH_3 , S(=O) CH_3 , $S(=O)CH_2CH_3$, $S(=O)_2CH_3$ and $S(=O)_2CH_2CH_3$;

R⁵rr is a benzyl group, wherein the methylene portion is substituted one group independently selected from the group consisting of methyl, ethyl, CHF₂, CF₃ and methoxy;

and wherein the phenyl ring is optionally substituted by one or more groups independently selected from the group 5 consisting of hydrogen, halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, cyclopropyl, CH—CH₂, C(CH₃) = CH₂, CH—CH(CH₃), C(CH₃)=CH(CH₃), CH=C(CH₃)₂, C(CH₃)=C(CH₃)₂, CH—CF₂, CH—CCl₂, 10 C=CH, methoxy, ethoxy, iso-propyloxy, OCHF₂, OCH₂—C=CH, OCH(CH₃)—C=CH, SCH₃, SCH₂CH₃, S(=O) CH₃, S(=O)CH₂CH₃, S(=O)CH₂CH₃, S(=O)CH₂CH₃, S(=O)CH₂CH₃;

 R^{5ss} is G^9 wherein R^{15} and R^{16} are selected independently of each other, from the group consisting of hydrogen, halo- 15 gen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl:

each R^{17} , R^{18} , R^{19} , R^{20} , R^{21} and R^{22} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 20 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

 R^{23} ', R^{24} ' and R^{25} ' are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio; R^{5tt} is G^9 wherein each R^{15} ', R^{16} ', R^{17} ', R^{18} ', R^{19} ', R^{20} ', R^{21} '

R^{5tt} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is either 0 or 1;

R^{5vv} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is either 0 or 1;

 $R^{5\nu\nu}$ is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are each hydrogen;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ 50 cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is either 0 or 1;

 R^{5wv} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF_2 :

each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, $\ \, 60$ from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio; n is either 0 or 1;

 R^{5xx} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are hydrogen; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is either 0 or 1;

 R^{5zz} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl;

R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, fluoromethyl and fluoroethyl;

R^{5ba} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is either 0 or 1;

 R^{5bc} is G^9 wherein each $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH_2F , CHF_2 , CF_3 , CHF— CH_3 , CF_2 — CH_3 , CH_2 — CH_2F CH_2 — CH_F_2 and CH_2 — CF_3 ; $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other,

R²³', R²⁴' and R²⁵' are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is either 0 or 1;

 R^{5bd} is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are each hydrogen;

R^{22'} to R^{24'} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is either 0 or 1;

 R^{5be} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF_3 ; each $R^{17'},\,R^{18'},\,R^{19'},\,R^{20'},\,R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_3\text{-}C_6$ cycloalkyl;

R²³′, R²⁴′ and R²⁵′ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is either 0 or 1;

 R^{5bf} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl and $C_3\text{-}C_6$ cycloalkyl; each $R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ is hydrogen;

each R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² is hydrogen; R²³', R²⁴' and R²⁵' are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is either 0 or 1;

 R^{5bg} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each R 17 , R 18 , R 19 , R 20 , R 21 and R 22 are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C $_1$ -C $_4$ alkyl, C $_1$ -C $_4$ haloalkyl, C $_1$ -C alkoxy, C $_1$ -C haloalkoxy and C $_3$ -C cycloalkyl; R 23 , R 24 and R 25 are selected independently of each other,

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

 \tilde{R}^{5bh} is \tilde{G}^9 wherein each $\tilde{R}^{15'}$, $\tilde{R}^{16'}$, $\tilde{R}^{17'}$, $\tilde{R}^{18'}$, $\tilde{R}^{19'}$, $\tilde{R}^{20'}$, $\tilde{R}^{21'}$ and $\tilde{R}^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

R²³', R²⁴' and R²⁵' are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, 20 CH₂—CH₃F CH₂—CHF₂ and CH₂—CF₃;

n is either 0 or 1;

 R^{5bi} is G^9 wherein each $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, $CH_2F, CHF_2, CF_3, CHF_CH_3, CF_2_CH_3, CH_2_CH_2FCH_2_CHF_2$ and $CH_2_CF_3;$ $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other,

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, 30 CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is either 0 or 1;

 R^{5bj} is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are each hydrogen;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, 35 from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is either 0 or 1;

 R^{5bk} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently $\,^{40}$ of each other, from the group consisting of methyl, F and CF $_3;$ each $R^{17'},\,R^{18'},\,R^{19'},\,R^{20'},\,R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_3\text{-}C_6$ cycloalkyl; $\,$ 45 $\,$ $R^{23'},\,R^{24'}$ and $R^{25'}$ are selected independently of each other,

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is either 0 or 1;

 R^{5bl} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl; each $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ is hydrogen;

each R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² is hydrogen; R²² to R²⁴ are selected independently of each other, from 55 the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is either 0 or 1;

 R^{5bm} is G^9 wherein R^{15} and R^{16} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

 R^{5bn} is G^9 wherein each $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is 0;

R^{5bo} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₇F CH₂—CHF₂ and CH₂—CF₃;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is 0;

 $R^{5\mathit{bp}}$ P is G^9 wherein $R^{15'},$ $R^{16'},$ $R^{17'},$ $R^{18'},$ $R^{19'},$ $R^{20'},$ $R^{21'}$ and $R^{22'}$ are each hydrogen;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 0;

 R^{5bq} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF $_3$; each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_3\text{-}C_6\text{cycloalkyl}$;

 $R^{23^{\circ}}, R^{24^{\circ}}$ and $R^{25^{\circ}}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio; n is 0;

 R^{5br} is G^9 wherein $R^{15'}$ is selected from the group consist-45 ing of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl; each $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ is selected

each R¹⁶′, R¹⁷′, Ř¹⁸′, R¹⁹′, R²⁰′, R²¹′ and R²²′ is selected independently of each other, from the group consisting of

hydrogen;

 $R^{23^{\text{\tiny T}}}, R^{24^{\text{\tiny H}}}$ and $R^{25^{\text{\tiny H}}}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 0

 R^{5bs} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₅ haloalkoxy and C₂-C₆ cycloalkyl;

alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; R^{23} ', R^{24} ' and R^{25} ' are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 0:

 R^{5bt} is G^9 wherein each $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

R²³', R²⁴' and R²⁵' are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 0;

 R^{5bu} is G^9 wherein each $R^{15'},R^{16'},R^{17'},R^{18'},R^{19'},R^{20'},R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, $CH_2F,\ CHF_2,\ CF_3,\ CHF_CH_3,\ CF_2_CH_3,\ CH_2_CH_2F$ and $CH_2_CF_3;$ $R^{23'},R^{24'}$ and $R^{25'}$ are selected independently of each other,

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 0:

 $R^{5b\nu}$ is G^9 wherein $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are each hydrogen;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 0;

 R^{5bw} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF_3 ; each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl; R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, 35 methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 0:

 R^{5bx} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 40 haloalkyl and C_3 - C_6 cycloalkyl;

haloalkyl and C₃-C₆ cycloalkyl; each R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² is hydrogen; R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluorom- 45 ethyl, monofluoroethyl, and polyfluoroethyl;

n is 0:

R^{5by} is G⁹ wherein R^{15'} and R^{16'} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₃-C₆ 50 cycloalkyl; each R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected inde-

each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl;

R²³′, R²⁴′ and R²⁵′ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 0:

 R^{5bz} is G^9 wherein each $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl,

ethyl, isopropyl, $\mathrm{CH}_2\mathrm{F}$, CHF_2 , CF_3 , CHF — CH_3 , CF_2 — CH_3 , CH_2 — $\mathrm{CH}_2\mathrm{F}$ CH_2 — CHF_2 and CH_2 — CF_3 ;

 R^{5ca} is G^9 wherein each $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH_2F , CHF_2 , CF_3 , CHF— CH_3 , CF_2 — CH_3 , CH_2 — CH_2F CH_2 — CHF_2 and CH_2 — CF_3 ; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other,

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 0;

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 R^{5cb} is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ and $R^{22'}$ are each hydrogen; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other,

 $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH_2F , CH_2F , CF_3 , CH_2 — CH_3 , CF_2 — CH_3 , CH_2 — CH_2F CH_2 — CHF_2 and CH_2 — CF_3 ; n is 0;

 R^{5cd} is G^9 wherein $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of methyl, F and CF_3 :

each R^{17} , $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

R²³′, R²⁴′ and R²⁵′ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 0:

 R^{5ce} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl; each $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ is hydrogen;

each R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² is hydrogen; R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 0;

 R^{5cf} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl;

alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is 1;

R^{5cg} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 1;

R^{5ch} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopro-

pyl, CH_2F , CHF_2 , CF_3 , CHF— CH_3 , CF_2 — CH_3 , CH_2 — CH_2F CH_2 — CHF_2 and CH_2 — CF_3 ;

 $R^{23^{\prime}}, R^{24^{\prime}}$ and $R^{25^{\prime}}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 1:

 R^{5ci} is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are each hydrogen;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 1;

 R^{5cj} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF_3 ; each $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ 20 alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_3\text{-}C_6$ cycloalkyl;

 $R^{23'}, R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_3\text{-}C_6$ cycloalkyl, $C_3\text{-}C_6$ halocycloalkyl and $C_1\text{-}C_4$ alkylthio;

n is 1;

 R^{5ck} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

haloalkyl and C_3 - C_6 cycloalkyl; each $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and $R^{22'}$ is selected 30 independently of each other, from the group consisting of

hydrogen;

 R^{23} , R^{24} and R^{25} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_3 - C_6 35 cycloalkyl, C_3 - C_6 halocycloalkyl and C_1 - C_4 alkylthio;

n is 1;

 $\rm R^{5cl}$ is $\rm G^9$ wherein $\rm R^{15'}$ and $\rm R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $\rm C_1\text{-}C_4$ alkyl, $\rm C_1\text{-}C_4$ haloalkyl and $\rm C_3\text{-}C_6$ 40 cycloalkyl;

each R^{17} , R^{18} , R^{19} , R^{20} , R^{21} and R^{22} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; R^{23} , R^{24} and R^{25} are selected independently of each other,

R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1:

 R^{5cm} is G^9 wherein each $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1:

R^{5cn} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

 R^{23} ', R^{24} ' and R^{25} ' are selected independently of each other, from the group consisting of hydrogen, cyano, halogen,

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methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1:

 $R^{5\it{co}}$ is G^9 wherein $R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'}$ and $R^{22'}$ are each hydrogen;

R^{23′}, R^{24′} and R^{25′} are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1;

 $R^{5\mathit{cp}}$ is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF $_3$; each $R^{17'},\,R^{18'},\,R^{19'},\,R^{20'},\,R^{21'}$ and $R^{22'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_3\text{-}C_6$ cycloalkyl; $R^{23'},\,R^{24'}$ and $R^{25'}$ are selected independently of each other,

R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1

 R^{5cq} is G^9 wherein $R^{15'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_2 - C_6 cycloalkyl;

haloalkyl and C₃-C₆ cycloalkyl; each R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² is hydrogen; R²³, R²⁴ and R²⁵ are selected independently of each other, from the group consisting of hydrogen, cyano, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

n is 1

 R^{5cr} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl;

each R^{17} , R^{18} , R^{19} , R^{20} , R^{21} and R^{22} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 1;

R^{5cs} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl;

R²³', R²⁴' and R²⁵' are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 1

R^{5ct} is G⁹ wherein each R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are selected independently of each other, from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF, and CH₂—CF₃;

n is 1; R^{5cu} is G^9 wherein $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$ and 65 $R^{22'}$ are each hydrogen;

R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl,

ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH_2 — CH_2 F CH_2 — CHF_2 and CH_2 — CF_3 ;

n is 1:

 R^{5cv} is G^9 wherein $R^{15'}$ and $R^{16'}$ are selected independently of each other, from the group consisting of methyl, F and CF₃; each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄

alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 1;

 R^{5cw} is G^9 wherein R^{15} is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄

haloalkyl and C₃-C₆ cycloalkyl; each R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} is hydrogen; R^{23'}, R^{24'} and R^{25'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, methyl, $^{\,20}$ ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

n is 1; R^{5cx} is G^{14} wherein G^{14} is

wherein R37' and R38' are selected independently of each 35 other from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₁-C₄ haloalkyl;

R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, 40 C₁-C₄ alkoxy and C₁-C₄ haloalkoxy and C₁-C₄ alkylthio; R⁴⁵, R⁴⁶, R⁴⁷, R⁴⁸ and R⁴⁹ are selected, independently

 $^{\prime}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N 45 (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halo- 50 cycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1;

 R^{5cy} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and 55 R^{44'} are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of 60 each other, from the group consisting of hydrogen, halogen, $CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3),$ $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ 65 haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalk66

enyloxy, C3-C6 alkynyloxy, C3-C6 cycloalkoxy, C3-C6 halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, $\mathrm{C}_1\text{-}\mathrm{C}_6$ haloalkylsulfinyl, $\mathrm{C}_1\text{-}\mathrm{C}_6$ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1; $R^{5\it cz}$ is G^{14} wherein $R^{3\it T'},R^{3\it 8'},R^{3\it 9'},R^{4\it 0'},R^{4\it 1'},R^{4\it 2'},R^{4\it 3'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, $CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3),$ $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, $\begin{array}{c} C_1\text{-}C_6 \text{ haloalkyl, } C_3\text{-}C_6 \text{ cycloalkyl, } C_2\text{-}C_6 \text{ alkenyl, } C_2\text{-}C_6 \\ \text{haloalkenyl, } C_2\text{-}C_6 \text{ alkynyl, } C_2\text{-}C_6 \text{ haloalkynyl, } C_1\text{-}C_6 \end{array}$ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1; R^{5da} is G^{14} wherein R^{37} , R^{38} , R^{39} , R^{40} , R^{41} , R^{42} , R^{43} and 25 R^{44'} are selected independently of each other from the group

consisting of methyl, ethyl, F and CF₃; $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), 30 $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1;

 R^{5db} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R44' are each hydrogen;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1;

R^{5dc} is G¹⁴ wherein R³⁷ is selected independently of each other from the group consisting of hydrogen, halogen, cyano,

 C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{38'},R^{39'},R^{40'},R^{41'},R^{42'},R^{43'} \ and \ R^{44'} \ are \ each \ hydrogen;$ R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C1-C6 alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halo-

cycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are independently selected from 0 and 1; R^{5de} is G^{14} wherein $R^{37'}$ and $R^{38'}$ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$, and $R^{44'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, 10 C₁-C₄ alkoxy and C₁-C₄ haloalkoxy and C₁-C₄ alkylthio;

 $R^{4\overline{5}}$, R^{46} , R^{47} , R^{48} and R^{49} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, $C(CH_3) = CH_2, CF_3, CHF_2, CH_2F, -CHF - CH_3, -CF_2 - 15$ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are independently selected from 0 and 1;

 \hat{R}^{5df} is \hat{G}^{14} wherein $R^{37'}$, $\hat{R}^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are selected independently of each other from the group 20 consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoromethyl;

 $R^{45^{\prime}}, R^{46^{\prime}}, R^{47^{\prime}}, R^{48^{\prime}}$ and $R^{49^{\prime}}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, 25 I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, --CHF--CH₃, --CF₂ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are independently selected from 0 and 1;

 R^{5dg} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F

CH₂—CHF₂ and CH₂—CF₃; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, -CHF-CH₃, -CF₂-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, meth- 40 methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; ylsulfinyl and methylsulfonyl;

p and q are independently selected from 0 and 1; R^{5dh} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and 44' are selected independently of each other from the group consisting of methyl, ethyl, F and CF₃;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, $C(CH_3) = CH_2$, CF_3 , CHF_2 , CH_2F , -CHF $-CH_3$, $-CF_2$ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, meth- 50 haloalkyl; ylsulfinyl and methylsulfonyl;

p and q are independently selected from 0 and 1;

 R^{5di} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are each hydrogen;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of 55 each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, $C(CH_3)=CH_2$, CF_3 , CHF_2 , CH_2F , $-CHF-CH_3$, $-CF_2-CH_3$ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are independently selected from 0 and 1;

 R^{5dj} is G^{14} wherein $R^{37'}$ is selected independently of each other from the group consisting of hydrogen, halogen, cyano,

 C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are each hydrogen; 65 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br,

I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

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p and q are independently selected from 0 and 1; R^{5dk} is G^{14} wherein R^{37} and R^{38} are selected independently dently of each other from the group consisting of hydrogen,

halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'},\,R^{40'},\,R^{41'},\,R^{42'},\,R^{43'}$ and $R^{44'}$ are selected independent dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl,

 C_1 - C_4 alkoxy and C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p and q are independently selected from 0 and 1;

R^{5dl} is G¹⁴ wherein R³⁷', R³⁸', R³⁹', R⁴⁰', R⁴²', R⁴³' and R⁴⁴' are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p and q are independently selected from 0 and 1; R^{5dm} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R44' are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂-CH₂F CH₂—CHF₂ and CH₂—CF₃;

 $\tilde{R^{45'}}, R^{46'}, R^{47'}, \tilde{R}^{48'}$ and $\tilde{R^{49'}}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p and q are independently selected from 0 and 1;

 R^{5dn} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44^{\prime}}$ are selected independently of each other from the group consisting of methyl, ethyl, F and CF₃;

R⁴⁵, R⁴⁶, R⁴⁷, R⁴⁸ and R⁴⁹ are selected, independently of each other, from the group consisting of hydrogen, F, Cl,

p and q are independently selected from 0 and 1;

 R^{5do} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R44' are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of 45 each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p and q are independently selected from 0 and 1;

 R^{5dp} is G^{14} wherein R^{37} is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₁-C₄

R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are each hydrogen; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are colocted. each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p and q are independently selected from 0 and 1;

 R^{5dq} is G^{14} wherein R^{37} and R^{38} are selected independently of each other from the group consisting of hydrogen,

halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'},\,R^{40'},\,R^{41'},\,R^{42'},\,R^{43'}$ and $R^{44'}$ are selected independent 60 dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C_1 - C_4 alkoxy, and C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of

each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, $\rm C_1\text{-}C_6$ haloalkyl, $\rm C_3\text{-}C_6$ cycloalkyl, $\rm C_2\text{-}C_6$ alkenyl, $\rm C_2\text{-}C_6$ haloalkenyl, $\rm C_2\text{-}C_6$ alkynyl, $\rm C_2\text{-}C_6$ haloalkynyl, $\rm C_1\text{-}C_6$ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ 5 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are each 0;

 R^{5dr} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are selected independently of each other from the group 10 consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

 $\mathring{R}^{45'}$, $\mathring{R}^{46'}$, $\mathring{R}^{47'}$, $\mathring{R}^{48'}$ and $\mathring{R}^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, 15 CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ 20 alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, $\rm C_3\text{-}C_6$ alkynyloxy, $\rm C_3\text{-}C_6$ cycloalkoxy, $\rm C_3\text{-}C_6$ halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are each 0;

 R^{5ds} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F 30 CH₂—CHF₂ and CH₂—CF₃;

R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N 35 (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C1-C6 haloalkoxy, C3-C6 alkenyloxy, C3-C6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halo- 40 cycloalkoxy, C1-C6 alkylthio, C1-C6 haloalkylthio, C1-C6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are each 0;

 R^{5dt} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and 45 R^{44'} are selected independently of each other from the group consisting of methyl, ethyl, F and CF₃;

R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), 50 $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N $(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C_1 - C_6 alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 haloalk- 55 enyloxy, $\mathrm{C_3\text{-}C_6}$ alkynyloxy, $\mathrm{C_3\text{-}C_6}$ cycloalkoxy, $\mathrm{C_3\text{-}C_6}$ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are each 0; $R^{5du} \text{ is } G^{14} \text{ wherein } R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} \text{ and }$ R^{44'} are each hydrogen;

R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), 65 $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl,

 C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p and q are each 0;

 R^{5dv} is G^{14} wherein R^{37} is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₁-C₄

 $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are each hydrogen; $R^{45^{\prime}}, R^{46^{\prime}}, R^{47^{\prime}}, R^{48^{\prime}}$ and $R^{49^{\prime}}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, $CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3),$ $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl 25 and C₁-C₆ haloalkylsulfonyl;

p and q are each 0;

R^{5dw} is G¹⁴ wherein R³⁷ and R³⁷ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$ and $R^{44'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of

each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are each 0;

 \hat{R}^{5dx} is \hat{G}^{14} wherein $R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$ and R^{44'} are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F. Cl. Br. I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are each 0;

 R^{5ea} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, 60 I, methyl, ethyl, isopropyl, cyclopropyl, C = CH, $CH = CH_2$, $C(CH_3)$ = CH_2 , CF_3 , CHF_2 , CH_2F , -CHF- CH_3 , $-CF_2$ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are each 0;

 R^{eb} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R44' are selected independently from each other from the group consisting of methyl, ethyl, F and CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methvlsulfinvl and methylsulfonvl;

p and q are each 0;

 R^{5ec} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R44' are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, -CHF-CH₃, -CF₂ylsulfinyl and methylsulfonyl;

p and q are each 0;

R^{5ed} is G¹⁴ wherein R³⁷ is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₁-C₄

R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are each hydrogen; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, $C(CH_3) = CH_2, CF_3, CHF_2, CH_2F, -CHF - CH_3, -CF_2 = 25$ CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p and q are each 0;

R^{5ef} is G¹⁴ wherein R³⁷ and R³⁸ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'},\,R^{40'},\,R^{41'},\,R^{42'},\,R^{43'}$ and $R^{44'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, 35 C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of

each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; p and a are each 0;

 R^{5eg} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F. Cl. methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; p and q are each 0;

 R^{5eh} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and 50 R^{44'} are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F

each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; p and q are each 0;

 $\hat{R}^{5\it ei}$ is \hat{G}^{14} wherein $R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$ and R^{44'} are selected independently of each other from the group 60 consisting of methyl, ethyl, F and CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; p and q are each 0;

 R^{5ej} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and R^{44'} are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy; p and q are each 0;

 R^{5ek} is G^{14} wherein R^{37} is selected from the group consisting of hydrogen, halogen, cyano, C1-C4 alkyl and C1-C4

haloalkyl; $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are each hydrogen; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p is 0;

R^{5el} is G¹⁴ wherein R^{37'} and R^{38'} are selected indepen-CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methhalogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl,

 C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, $\mathrm{C_3\text{-}C_6}$ alkynyloxy, $\mathrm{C_3\text{-}C_6}$ cycloalkoxy, $\mathrm{C_3\text{-}C_6}$ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p is 0;

 R^{5em} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p is 0;

 $\begin{array}{ll} \text{CH}_2\text{--}\text{CHF}_2\text{ and CH}_2\text{--}\text{CF}_3; & R^{5\textit{en}}\text{ is }G^{14}\text{ wherein }R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}\text{ and }R^{45'}, R^{46''}, R^{47''}, R^{48''}\text{ and }R^{49''}\text{ are selected, independently of }55 & R^{44''}\text{ are selected independently of each other from the group} \end{array}$ consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH_2 — CHF_2 and CH_2 — CF_3 ;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C1-C6 alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl;

p is 0; q is 1;

R^{5eo} is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are independently selected of each other from the group consisting of methyl, ethyl, F and CF₃;

 $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, $_{10}^{10}$ CN, NO $_{2}$, OH, SH, CHO, C(=O)NH $_{2}$, C(=O)NH(CH $_{3}$), C(=O)N(CH $_{3}$) $_{2}$, C(=S)NH $_{2}$, C(=S)NH(CH $_{3}$), C(=S)N (CH $_{3}$) $_{2}$, SO $_{2}$ NH $_{2}$, SO $_{2}$ NH(CH $_{3}$), SO $_{2}$ N(CH $_{3}$), C $_{1}$ -C $_{6}$ alkyl, C $_{1}$ -C $_{6}$ haloalkyl, C $_{3}$ -C $_{6}$ cycloalkyl, C $_{2}$ -C $_{6}$ alkenyl, C $_{2}$ -C $_{6}$ haloalkenyl, C $_{2}$ -C $_{6}$ alkynyl, C $_{2}$ -C $_{6}$ haloalkynyl, C $_{1}$ -C $_{6}$ alkoxy, C $_{1}$ -C $_{6}$ haloalkoxy, C $_{3}$ -C $_{6}$ alkenyloxy, C $_{3}$ -C $_{6}$ haloalkenyloxy, C $_{3}$ -C $_{6}$ alkynyloxy, C $_{3}$ -C $_{6}$ alkenyloxy, C $_{3}$ -C $_{6}$ haloalkenyloxy, C $_{3}$ -C $_{6}$ alkyloxy, C $_{3}$ -C $_{6}$ alkyloxy, C $_{1}$ -C $_{6}$ haloalkyloxy, C $_{1}$ -C $_{6}$ haloalkyloxylinyl, C $_{1}$ -C $_{6}$ haloalkylsulfinyl, C $_{1}$ -C $_{6}$ haloalkylsulfinyl, C $_{1}$ -C $_{6}$ haloalkylsulfinyl, C $_{1}$ -C $_{6}$ haloalkylsulfonyl, and C $_{1}$ -C $_{6}$ haloalkylsulfonyl;

p is 0;

 R^{5ep} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and

R^{44'} are each hydrogen;

 $R^{45}, R^{46}, R^{47}, R^{48}$ and R^{49} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH(CH3), C(=O)N(CH3)2, C(=S)NH2, C(=S)NH(CH3), C(=S)N (CH3)2, SO2NH2, SO2NH(CH3)3, SO2N(CH3)2, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C2-C6 alkoyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C3-C6 alkenyloxy, C3-C6 haloalkenyl, C3-C6 cycloalkoxy, C3-C6 haloalkenyl, C3-C6 alkynyl, C1-C6 alkoxy, C3-C6 haloalkenyl, C3-C6 alkynyloxy, C3-C6 cycloalkoxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 haloalkenyloxy, C3-C6 alkynyloxy, C3-C6 haloalkynyloxy, C3-C6 haloalkyloxy, C3-C6

p is 0;

a is 1:

 $ilde{R}^{Seq}$ is G^{14} wherein $R^{37'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 40 haloalkyl;

haloalkyl; $R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} \text{ and } R^{44'} \text{ are each hydrogen;} \\ R^{45'}, R^{46'}, R^{47'}, R^{48'} \text{ and } R^{49'} \text{ are selected, independently of each other, from the group consisting of hydrogen, halogen,} \\ CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3), 45 \\ C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3), C(=S)N \\ (CH_3)_2, SO_2NH_2, SO_2NH(CH_3), SO_2N(CH_3)_2, C_1-C_6 \text{ alkyl,} \\ C_1-C_6 \text{ haloalkyl, } C_3-C_6 \text{ cycloalkyl, } C_2-C_6 \text{ alkenyl, } C_2-C_6 \\ \text{haloalkenyl, } C_2-C_6 \text{ alkynyl, } C_2-C_6 \text{ haloalkynyl, } C_1-C_6 \\ \text{alkoxy, } C_1-C_6 \text{ haloalkoxy, } C_3-C_6 \text{ cycloalkoxy, } C_3-C_6 \text{ haloalk-soy, } C_3-C_6 \text{ alkynyloxy, } C_3-C_6 \text{ haloalkylhiio, } C_1-C_6 \\ \text{alkylsulfinyl, } C_1-C_6 \text{ haloalkylsulfinyl, } C_1-C_6 \text{ alkylsulfonyl and } C_1-C_6 \text{ haloalkylsulfonyl;} \\ \text{alkylsulfonyl;} \\ \text{alkoxy} C_1-C_6 \text{ haloalkylsulfonyl;} \\ \text{alkylsulfonyl;} \\ \text{alkyls$

p is 0;

q is 1;

 R^{5er} is G^{14} wherein $R^{37'}$ and $R^{38'}$ are selected independently of each other from the group consisting of hydrogen, halogen, evano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

halogen, cyano, C₁-C₄ alkyl and C₁-C₄ haloalkyl;

R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio:

 C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio; R^{45} ', R^{46} ', R^{47} , R^{48} ' and R^{49} ' are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, 65 I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—

CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 0; q is 1;

R^{5es} is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and

polvfluoroethvl:

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 0;

q is 1

R^{5et} is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F

CH $_2$ —CHF $_2$ and CH $_2$ —CF $_3$; R⁴⁵', R⁴⁶', R⁴⁷', R⁴⁸' and R⁴⁹' are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH $_2$, C(CH $_3$)=CH $_2$, CF $_3$, CHF $_2$, CH $_2$ F, —CHF—CH $_3$, —CF $_2$ —CH $_3$, methoxy, trifluoromethoxy, ethoxy, methlythio, meth-

ylsulfinyl and methylsulfonyl;

p is 0;

q is 1;

R^{5eu} is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of methyl, ethyl, F and CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'}, and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 0;

q is 1;

 R^{5ev} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and

R^{44'} are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, −CHF−CH₃, −CF₂−CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 0;

q is 1;

 R^{5ex} is G^{14} wherein $R^{37'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl:

R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are each hydrogen; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 0;

q is 1;

 R^{5ey} is G^{14} wherein R^{37} and $R^{38'}$ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

 $R^{39'},\,R^{40'},\,R^{41'},\,R^{42'},\,R^{43'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ haloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ haloalkoxy and $C_1\text{-}C_4$ alkylthio; $R^{45'},\,R^{46'},\,R^{47'},\,R^{48'}$ and $R^{49'}$ are selected, independently of $\,^5$

each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p is 0; q is 1;

R^{5ez} is G¹⁴ wherein R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and 10 R^{44'} are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoromethyl;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of 15 each other, from the group consisting of hydrogen, F, Cl, methyl, CF_3 , CHF_2 , CH_2F , methoxy and trifluoromethoxy;

p is 0;

R^{5/a} is G¹⁴ wherein R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and 20 R^{44'} are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₃—CHF₃ and CH₃—CF₃:

CH₂—CHF₂ and CH₂—CF₃; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of 25 each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p is 0;

q is 1; $R^{5/b}$ is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and 30 $R^{44'}$ are selected independently of each other from the group consisting of methyl, ethyl, F and CF_3 ;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p is 0;

q is 1; $R^{5/c} \, is \, G^{14} \, wherein \, R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} \, and$

R^{44'} are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of 40 each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₃F, methoxy and trifluoromethoxy;

p is 0;

q is 1;

 \hat{R}^{5fd} is G^{14} wherein R^{37} is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

 $R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$ and $R^{44'}$ are each hydrogen; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, 50 methyl, CF_3, CHF_2, CH_2F , methoxy and trifluoromethoxy;

p is 0;

q is 1:

R^{55fe} is G¹⁴ wherein R^{37'} and R^{38'} are selected independently of each other from the group consisting of hydrogen, 55 halogen, cyano, C₁-C₄ alkyl and C₁-C₄ haloalkyl; R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are selected independent

 R^{39} , R^{40} , R^{41} , R^{42} , R^{43} and R^{44} are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio;

 $\begin{array}{lll} C_1\text{-}C_4 \text{ alkoxy, } C_1\text{-}C_4 \text{ haloalkoxy } \text{ and } C_1\text{-}C_4 \text{ alkylthio;} & 60 \\ R^{45}\text{'}, R^{46'}, R^{47'}, R^{48'} \text{ and } R^{49'} \text{ are selected, independently of each other, from the group consisting of hydrogen, halogen,} \\ CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3), \\ C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3), C(=S)N \\ (CH_3)_2, SO_2NH_2, SO_2NH(CH_3), SO_2N(CH_3)_2, C_1\text{-}C_6 \text{ alkyl,} \\ C_1\text{-}C_6 \text{ haloalkyl, } C_3\text{-}C_6 \text{ cycloalkyl, } C_2\text{-}C_6 \text{ alkenyl, } C_2\text{-}C_6 \\ \text{haloalkenyl, } C_2\text{-}C_6 \text{ alkynyl, } C_2\text{-}C_6 \text{ haloalkynyl, } C_1\text{-}C_6 \end{array}$

alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halocycloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl and C_1 - C_6 haloalkylsulfonyl;

p is 1; q is 1;

R^{5/g} is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

R^{45'}, R^{46'}, Ř^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₃-C₆ alkoxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylloxy, C₃-C₆ haloalkyllino, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p is 1;

R⁵fh is G¹⁴ wherein R³⁷, R³⁸, R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), SC(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkynyloxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalk-do enyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p is 1;

q is 1;

R^{5/f} is G¹⁴ wherein R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are selected independently of each other from the group consisting of methyl, ethyl, F and CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N (CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ slkonyl, C₁-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₃-C₆ haloalkoxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ haloalkyloxy, C₃-C₆ alkynyloxy, C₃-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

p is 1;

q is 1;

 R^{5f} is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃),

 $\begin{array}{l} C(=\!O)N(CH_3)_2,\ C(=\!S)NH_2,\ C(=\!S)NH(CH_3),\ C(=\!S)N\\ (CH_3)_2,\ SO_2NH_2,\ SO_2NH(CH_3),\ SO_2N(CH_3)_2,\ C_1\text{-}C_6\ alkyl,\\ C_1\text{-}C_6\ haloalkyl,\ C_3\text{-}C_6\ eycloalkyl,\ C_2\text{-}C_6\ alkenyl,\ C_2\text{-}C_6\ haloalkynyl,\ C_1\text{-}C_6\ haloalkynyl,\ C_1\text{-}C_6\ alkoxy,\ C_3\text{-}C_6\ haloalkynyl,\ C_3\text{-}C_6\ haloalkynyl,\ C_3\text{-}C_6\ haloalkynyloxy,\ C_3\text{-}C_6\ haloalkynyloxy,\ C_3\text{-}C_6\ haloalkyloxy,\ C_3\text{-}$

p is 1;

 $R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'}$ and $R^{44'}$ are each hydrogen; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, $CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3), C(=S)N 20 (CH_3)_2, SO_2NH_2, SO_2NH(CH_3), SO_2N(CH_3)_2, C_1-C_6$ alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_2-C_6 alkynyl, C_2-C_6 alkenyloxy, C_3-C_6 cycloalkoxy, C_3-C_6 alkenyloxy, C_3-C_6 haloalkenyloxy, C_3-C_6 alkynyloxy, C_3-C_6 cycloalkoxy, C_3-C_6 haloalkenyloxy, C_3-C_6 alkynyloxy, C_3-C_6 cycloalkoxy, C_3-C_6 haloalkenyloxy, C_3-C_6 alkynyloxy, C_3-C_6 alkylyloxy, C_3-C_6 alkylyloxy, C_3-C_6 alkylyloxy, C_3-C_6 haloalkylthio, C_1-C_6 alkylsulfinyl, C_1-C_6 haloalkylsulfinyl, C_1-C_6 haloalkylsulfinyl, C_1-C_6 haloalkylsulfonyl and C_1-C_6 haloalkylsulfonyl;

p is 1; a is 1:

 R^{5fl} is G^{14} wherein $R^{37'}$ and $R^{38'}$ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl; $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, 35 halogen, hydroxy, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_4 - C_4 alkoxy, C_4 - C_4 haloalkyl, C_4 - C_4 alkyl, C_4 - C_4 haloalkyl, C_4 - C_4

C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio; $R^{45'}, R^{46'}, R^{47'}, R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, 40 C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1;

q is 1;

 $\hat{R}^{5/m}$ is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

Ř^{45'}, R^{46'}, Ř^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1;

R⁵/n is G¹⁴ wherein R³⁷′, R³⁸′, R³⁹′, R⁴⁰′, R⁴¹′, R⁴²′, R⁴³′ and R⁴⁴′ are selected independently of each other from the group 60 consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃; R⁴⁵′, R⁴⁶′, R⁴⁷′, R⁴⁸′ and R⁴⁹′ are selected, independently of

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, 65 I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—

CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1; q is 1;

 \dot{R}^{5fo} is \dot{G}^{14} wherein $\dot{R}^{37'}$, $\dot{R}^{38'}$, $\dot{R}^{39'}$, $\dot{R}^{40'}$, $\dot{R}^{41'}$, $\dot{R}^{42'}$, $\dot{R}^{43'}$ and $\dot{R}^{44'}$ are selected independently of each other from the group consisting of methyl, ethyl, F and $\dot{C}F_3$;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1;

q is 1;

 $R^{5/p}$ is G^{14} wherein $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{41'}$, $R^{42'}$,

R⁴³ and R⁴⁴ are each hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1; q is 1;

 $\hat{R}^{5/q}$ is G^{14} wherein $R^{37'}$ is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

 $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are hydrogen;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, Br, I, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

p is 1; q is 1;

 R^{5fr} is G^{14} wherein R^{37} and R^{38} are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

R³⁹, R⁴⁰, R⁴¹, R⁴², R⁴², R⁴³ and R⁴⁴ are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio;

C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio; R⁴⁵, R⁴⁶, R⁴⁷, R⁴⁸ and R⁴⁹ are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₃F, methoxy and trifluoromethoxy;

p is 1;

R^{5/s} is G¹⁴ wherein R^{37′}, R^{38′}, R^{39′}, R^{40′}, R^{41′}, R^{42′}, R^{43′} and R^{44′} are selected independently of each other from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl and polyfluoroethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

p is 1;

q is 1;

R⁵fr is G¹⁴ wherein R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CH₂—CH₂F CH₂—CHF₂ and CH₂—CF₃;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, F, Cl, methyl, CF₃, CHF₂, CH₂F, methoxy and trifluoromethoxy;

| 79 | | | | | | | 80 | | | | | |
|---|---------------------------|-----------------------------|------------------------------------|------------------------------------|---|-----|-------------|-----------------------------|-------------------------------------|-------------------------------------|--------------------------------------|-------------------|
| p is 1; | | | | | | | | | TABLE | N-contin | ued | |
| q is 1; | C141 | : ъ37' т | 38' n39' i | n40' n41' | R ^{42'} , R ^{43'} and | - | | R ₁ | p | p | D | D |
| R 18' | G Wnei | rein K., r ndonandai | N ,K ,I | K,K, Shothorfr | om the group | - | | | R ₃ | R ₄ | R ₅ | R ₆ |
| consisting | of metl | ndepende nvl. ethvl. | F and CF | ai omei n | om me group | 5 | N23 N24 | R^{1b} R^{1b} | R^{3b} R^{3c} | \mathbb{R}^{4d} \mathbb{R}^{4e} | R^{5h} R^{5h} | R^{6b} R^{6b} |
| R ⁴⁵ '. R | $^{46'}$. $R^{47'}$. | R ⁴⁸ ' and R | 49' are sele | ected, inde | ependently of | _ | N25 | R^{1b} | \mathbb{R}^{3a} | R^{4c} | \mathbb{R}^{5j} | R^{6b} |
| | | | | | rogen, F, Cl, | | N26 | R^{1b} | R^{3b} | R^{4d} | R^{5j} | R^{6b} |
| | | | | | romethoxy; | | N27 N28 | R^{1b} R^{1b} | R^{3c} R^{3d} | R^{4e} R^{4c} | R^{5j} R^{5k} | R^{6b} R^{6b} |
| p is 1; | | | | | | | N29 | R^{1b} | R^{3b} | R^{4d} | \mathbb{R}^{5k} | R^{6b} |
| q is 1; | | 2.71 | 201 201 | 401 411 | 401 401 | 10 | N30 | R^{1b} R^{1b} | R^{3c} R^{3d} | R^{4e} R^{4c} | R^{5k} R^{5l} | R^{6b} R^{6b} |
| | | | R^{38}, R^{39}, I | R^{40} , R^{41} , | $R^{42'}$, $R^{43'}$ and | | N31 N32 | R^{1b} | R^{3b} | R^{4d} | R^{5l} | R^{6b} |
| R ⁴⁴ are e | ach hydr | ogen; | 49' 1 | . 1 . 1 | 1 .1 6 | | N33 | R^{1b} | R^{3c} | R^{4e} | R^{5l} | R^{6b} |
| | | | | | ependently of | | N34 N35 | R^{1b} R^{1b} | R^{3d} R^{3b} | R^{4c} R^{4d} | R^{5m} R^{5m} | R^{6b} R^{6b} |
| | | | | | rogen, F, Cl, romethoxy; | 1.5 | N36 | R^{1b} | R^{3c} | R^{4e} | R^{5m} | R^{6b} |
| p is 1; | r ₃ , CIII | $_2$, CH $_2$ F, I | шешоху а | ina minuo | iomemoxy, | 15 | N37 | R^{1b} | R^{3d} | R^{4c} | R^{5n} | R^{6b} |
| q is 1; | | | | | | | N38 N39 | R^{1b} R^{1b} | R^{3b} R^{3c} | R^{4d} R^{4e} | R^{5n} R^{5n} | R^{6b} R^{6b} |
| R^{5fw} is | G^{14} whe | erein R ³⁷ | is selected | 1 from hyd | drogen, halo- | | N40 | R^{1b} | \mathbb{R}^{3d} | R^{4c} | R ⁵⁰ | R^{6b} |
| gen, cyan | o, C₁-C₄ | alkyl and | C₁-C₄ ha | loalkyl; | | | N41 | R^{1b} | R^{3b} | R^{4d} | R ⁵⁰ | R^{6b} |
| R^{38} , R | $^{39'}, R^{40'},$ | R41, R42 | , R ⁴³ and | R ⁴⁴ are s | elected inde- | 20 | N42 N43 | R^{1b} R^{1b} | R^{3c} R^{3d} | ${ m R}^{4e} \ { m R}^{4c}$ | R^{5o} R^{5p} | R^{6b} R^{6b} |
| pendently | of each | other from | n the grou | ip consist | ing of hydro- | | N44 | R^{1b} | R^{3b} | \mathbb{R}^{4d} | R^{5p} | R^{6b} |
| gen, fluo | rine, me | thyl, ethyl | l, isoprop | yl, CH ₂ F, | CHF ₂ , CF ₃ , | | N45 | R^{1b} | R^{3c} | R^{4e} | R^{5p} | R^{6b} |
| | | $-CH_3$, | CH ₂ —CH | I ₂ F CH ₂ - | -CHF ₂ and | | N46 N47 | ${ m R}^{1b}$ ${ m R}^{1b}$ | R^{3d} R^{3b} | ${ m R}^{4c}$ ${ m R}^{4d}$ | R^{5q} R^{5q} | R^{6b} R^{6b} |
| CH_2 — CH_2 | 3; 46' = 47' : | - 10' | 10' | | | | N48 | R^{1b} | \mathbb{R}^{3c} | R^{4e} | \mathbb{R}^{5q} | R^{6b} |
| | | | | | ependently of | 25 | N49 | ${ m R}^{1b} \ { m R}^{1b}$ | R^{3d} R^{3b} | ${ m R}^{4c} \ { m R}^{4d}$ | R^{5r} R^{5r} | R^{6b} R^{6b} |
| | | | | | rogen, F, Cl, | | N50 N51 | R^{1b} | R^{3c} | R^{4e} | R ⁵ r | R^{6b} |
| | Γ_3 , CHF | $_2$, CH ₂ F, 1 | metnoxy a | ına ırınuo | romethoxy; | | N52 | R^{1b} | \mathbb{R}^{3d} | \mathbb{R}^{4c} | \mathbb{R}^{5s} | R^{6b} |
| p is 1; q is 1; | | | | | | | N53 | R^{1b} R^{1b} | R^{3b} R^{3c} | ${ m R}^{4d} \ { m R}^{4e}$ | ${ m R}^{5s}$ ${ m R}^{5s}$ | R^{6b} R^{6b} |
| R ^{6a} is selected from hydrogen and SH; | | | | | | 30 | N54 N55 | R^{1b} | R^{3d} | R^{4c} | R^{5t} | R^{6b} |
| R^{6b} is 1 | hydroger | 1: 1: | ogen ana | 511, | | 50 | N56 | R^{1b} | \mathbb{R}^{3b} | R^{4d} | \mathbb{R}^{5t} | R^{6b} |
| R^{6c} is S | | -> | | | | | N57 N58 | R^{1b} R^{1b} | R^{3c} R^{3d} | R^{4e} R^{4c} | R^{5t} R^{5u} | R^{6b} R^{6b} |
| Each line of Table N describes a preferred sub-group from | | | | | | N59 | R^{1b} | R^{3b} | R^{4d} | R^{5u} | R^{6b} | |
| | | | | | note that in | | N60 | R^{1b} | R^{3c} | R^{4e} | R^{5u} | R^{6b} |
| | | | | | R ₇ is always | 35 | N61 N62 | R^{1b} R^{1b} | R^{3d} R^{3b} | R^{4c} R^{4d} | $R^{5\nu}$ $R^{5\nu}$ | R^{6b} R^{6b} |
| | | | | V1 is a gr | oup of com- | | N63 | R^{1b} | \mathbb{R}^{3c} | \mathbb{R}^{4e} | $R^{5\nu}$ | R^{6b} |
| pounds of | f formula | a (I) where | ein | | | | N64 | R^{1b} | R^{3d} | R^{4c} | R^{5x} | R^{6b} |
| R_1 is R | | | | | | | N65 N66 | R^{1b} R^{1b} | R^{3b} R^{3c} | R^{4d} R^{4e} | R^{5x} R^{5x} | R^{6b} R^{6b} |
| R ₂ is m R ₃ is R | 1etny1; | | | | | 40 | N67 | R^{1b} | \mathbb{R}^{3d} | \mathbb{R}^{4c} | R^{5y} | R^{6b} |
| R_3 is R R_4 is R | 4c. | | | | | 40 | N68 | R^{1b} R^{1b} | R^{3b} R^{3c} | ${ m R}^{4d}$ ${ m R}^{4e}$ | R ^{5y} R ^{5y} | R^{6b} R^{6b} |
| R_5 is R | 5a. | | | | | | N69 N70 | R^{1b} | R^{3d} | R^{4c} | R^{5z} | R^{6b} |
| R_6 is R | 6b. | | | | | | N71 | R^{1b} | R_{a}^{3b} | R^{4d} | R^{5z} | R^{6b} |
| R ₇ is H | | | | | | | N72 N73 | R^{1b} R^{1b} | ${ m R}^{3c} \ { m R}^{3d}$ | R^{4e} R^{4c} | ${ m R}^{5z} \ { m R}^{5ab}$ | R^{6b} R^{6b} |
| , | | | | | | 45 | N74 | R^{1b} | R^{3b} | \mathbb{R}^{4d} | R^{5ab} | R^{6b} |
| | | TA | BLE N | | | | N75 | R^{1b} | \mathbb{R}^{3c} | R ^{4e} | R^{5ab} | R^{6b} |
| | D. | | | T) | D. | | N76 N77 | R^{1b} R^{1b} | R^{3d} R^{3b} | R^{4c} R^{4d} | R^{5ac} R^{5ac} | R^{6b} R^{6b} |
| | R ₁ | R ₃ | R ₄ | R ₅ | R ₆ | | N78 | R^{1b} | R^{3c} | R^{4e} | R^{5ac} | R^{6b} |
| N1 | R^{1b} | R^{3a} | \mathbb{R}^{4c} | R^{5a} | R ^{6b} | | N79 | R^{1b} R^{1b} | R^{3d} R^{3b} | R^{4c} R^{4d} | R ^{5ad} R ^{5ad} | R^{6b} R^{6b} |
| N2 N3 | R^{1b} R^{1b} | R^{3b} R^{3c} | R^{4d} R^{4e} | R ^{5a} R ^{5a} | R^{6b} R^{6b} | 50 | N80 N81 | R^{1b} | R^{3c} | R^{4e} | R ^{5ad} | R^{6b} |
| N4 | \mathbb{R}^{1b} | \mathbb{R}^{3a} | \mathbb{R}^{4c} | \mathbb{R}^{5b} | R^{6b} | | N82 | R^{1b} | R^{3e} | R^{4c} | R_{su}^{5bb} | R^{6b} |
| N5 | R^{1b} R^{1b} | R^{3b} R^{3c} | R^{4d} | ${ m R}^{5b}$ ${ m R}^{5b}$ | R ^{6b} R ^{6b} | | N83 N84 | R^{1b} R^{1b} | R^{3f} R^{3g} | R^{4c} R^{4e} | R ^{5bb} R ^{5bb} | R^{6b} R^{6b} |
| N6 N7 | R^{1b} | R^{3a} | R^{4e} R^{4c} | R^{5c} | R^{6b} | | N85 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5bb} | R^{6b} |
| N8 | \mathbb{R}^{1b} | \mathbb{R}^{3b} | \mathbb{R}^{4d} | \mathbb{R}^{5c} | R^{6b} | 55 | N86 | R_{ib}^{1b} | R^{3e} | R^{4c} | R ^{5cc} | R^{6b} |
| N9 N10 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3c} R^{3a} | R ^{4e} R ^{4c} | R^{5c} R^{5d} | R^{6b} R^{6b} | | N87 N88 | R^{1b} R^{1b} | R^{3f} R^{3g} | R^{4c} R^{4e} | R^{5cc} R^{5cc} | R^{6b} R^{6b} |
| N10 N11 | R^{1b} | R^{3b} | R^{4d} | R^{5d} | R ^{6b} | | N89 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5cc} | R^{6b} |
| N12 | $R_{\perp L}^{1b}$ | R^{3c} | R^{4e} | R^{5d} | R_{cl}^{6b} | | N90 | R^{1b} | R^{3e} | R^{4c} | R ^{5dd} | R^{6b} |
| N13 N14 | R^{1b} R^{1b} | R^{3a} R^{3b} | R^{4c} R^{4d} | R ^{5e} R ^{5e} | R^{6b} R^{6b} | | N91 N92 | R^{1b} R^{1b} | R^{3f} R^{3g} | R^{4c} R^{4e} | R^{5dd} R^{5dd} | R^{6b} R^{6b} |
| N14 N15 | R^{1b} | R^{3c} | R^{4e} | \mathbb{R}^{5e} | R^{6b} | 60 | N93 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5dd} | R^{6b} |
| N16 | R^{1b} | R^{3a} | \mathbb{R}^{4c} | R ^{5f} | R ^{6b} | | N94 | R^{1b} R^{1b} | R^{3e} R^{3f} | R^{4c} R^{4c} | R ^{5ee} R ^{5ee} | R^{6b} R^{6b} |
| N17 N18 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3b} R^{3c} | R^{4d} R^{4e} | R ⁵ R ⁵ | R^{6b} R^{6b} | | N95 N96 | R^{1b} R^{1b} | R^{3g} R^{3g} | R^{4e} R^{4e} | R ^{5ee} | R^{6b} R^{6b} |
| N19 | \mathbb{R}^{1b} | \mathbb{R}^{3a} | \mathbb{R}^{4c} | \mathbb{R}^{5g} | R^{6b} | | N97 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ee} | R^{6b} |
| N20 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3b} R^{3c} | R^{4d} | R ^{5g} | R^{6b} R^{6b} | 65 | N98 | R^{1b} R^{1b} | \mathbb{R}^{3i} \mathbb{R}^{3j} | R^{4c} R^{4c} | R ^{5ae} R ^{5af} | R^{6a} R^{6b} |
| N21 N22 | R^{1b} R^{1b} | R^{3a} R^{3a} | R^{4e} R^{4c} | R^{5g} R^{5h} | R^{6b} R^{6b} | UJ | N99 N100 | R^{1b} | \mathbb{R}^{3k} | R^{4c} | R ^{5ag} | R ^{6a} |
| 1.22 | | ** | ** | | | | 2.100 | | ** | ** | | |

82 TABLE N-continued

| TABLE N-continued | | | | | | TABLE N-continued | | | | | | |
|----------------------|-----------------------------|-------------------|-------------------------|--------------------------------------|-------------------|-------------------|--------------|---------------------------|-------------------------------------|---------------------------|--------------------------------------|-------------------|
| | R_1 | R_3 | R_4 | R_5 | R_6 | | | R_1 | R_3 | R_4 | R_5 | R_6 |
| N101 | R^{1b} | \mathbb{R}^{3k} | \mathbb{R}^{4c} | R ^{5ag} | R^{6b} | | N179 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R ^{5gg} | R^{6b} |
| N102 | R^{1b} | R^{3I} | R^{4c} | R ^{5ag} | R ^{6c} | 5 | N180 | R^{1b} | \mathbb{R}^{3r} | R^{4e} | R ⁵ € | R^{6b} |
| N103 | R^{1b} | \mathbb{R}^{3i} | R^{4e} | R^{5ae} | R^{6a} | | N181 | \mathbb{R}^{1b} | \mathbb{R}^{3r} | \mathbb{R}^{4e} | R^{5gg} | R^{6b} |
| N104 | R^{1b} | \mathbb{R}^{3j} | R^{4e} | R^{5af} | R^{6b} | | N182 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R^{5hh} | R^{6a} |
| N105 | R^{1b} | \mathbb{R}^{3k} | R^{4e} | R^{5ag} | R^{6a} | | N183 | R^{1b} | R^{3o} | \mathbb{R}^{4c} | R^{5jj} | R^{6b} |
| N106 | R^{1b} | \mathbb{R}^{3k} | R^{4e} | R^{5ag} | R^{6b} | | N184 | R^{1b} | R^{3o} | \mathbb{R}^{4c} | R^{5jj} | R^{6c} |
| N107 | R^{1b} | \mathbb{R}^{3l} | R^{4e} | R^{5ag} | R^{6c} | | N185 | R^{1b} | R^{3p} | R^{4e} | R^{5hh} | R^{6b} |
| N108 | R^{1b} | \mathbb{R}^{3i} | R^{4f} | R^{5ae} | R^{6a} | 10 | N186 | R^{1b} | R^{3p} | R^{4e} | R^{5jj} | R^{6b} |
| N109 | R^{1b} | R^{3j} | R^{4f} | R^{5af} | R^{6b} | | N187 | R^{1b} | \mathbb{R}^{3q} | \mathbb{R}^{4e} | R^{5hh} | R^{6b} |
| N110 | R^{1b} | \mathbb{R}^{3k} | R^{4f} | R^{5ag} | R^{6a} | | N188 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R ^{5jj} | R^{6b} |
| N111 | R^{1b} | \mathbb{R}^{3k} | R^{4f} | R ^{5ag} | R ^{6b} | | N189 | R^{1b} | R^{3r} | R ^{4e} | R ^{5hh} | R^{6b} |
| N112 | R^{1b} | R ³¹ | R^{4f} | R^{5ag} | R^{6c} | | N190 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R ^{5jj} | R^{6b} |
| N113 | R^{1b} | \mathbb{R}^{3m} | \mathbb{R}^{4c} | R ^{5ae} | R ^{6a} | | N191 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R ^{5kk} | R ^{6a} |
| N114 | R^{1b} | \mathbb{R}^{3m} | R^{4c} | R ^{5af} | R^{6b} | 15 | N192 | R^{1b} | R ³⁰ | R^{4c} | R ^{5ll} | R^{6b} |
| N115 | R^{1b} | R^{3m} | R^{4c} | R ^{5ag} | R^{6a} | | N193 | R^{1b} | R ³⁰ | R^{4c} | R ^{5ll} | R^{6c} |
| N116 | R^{1b} | R^{3m} | R^{4c} R^{4c} | R ^{5ag} R ^{5ag} | R^{6b} | | N194 | R^{1b} | \mathbb{R}^{3p} | R^{4e} | R^{5kk} R^{5ll} | R^{6b} |
| N117 | R^{1b} | R^{3m} | | | R^{6c} R^{6a} | | N195 | R^{1b} | R^{3p} | R ^{4e} | | R^{6b} R^{6b} |
| N118 | ${ m R}^{1b}$ ${ m R}^{1b}$ | \mathbb{R}^{3m} | $ m R^{4e}$ $ m R^{4e}$ | R ^{5ae} R ^{5af} | R^{6b} | | N196 | ${f R}^{1b}$ ${f R}^{1b}$ | \mathbb{R}^{3q} \mathbb{R}^{3q} | $ m R^{4e}$ $ m R^{4e}$ | R^{5kk} R^{5ll} | R^{6b} |
| N119 | R^{1b} | R^{3m} R^{3m} | R^{4e} | R ^{5ag} | R^{6a} | | N197 | R^{1b} | R^{3q} R^{3r} | R ^{4e} | R^{5k} | R^{6b} |
| N120 | R^{1b} | \mathbb{R}^{3m} | R^{4e} | R ^{5ag} | R^{6b} | 20 | N198 | R^{1b} | \mathbb{R}^{3r} | | R ^{5ll} | R^{6b} |
| N121 N122 | R^{1b} | \mathbb{R}^{3m} | R ^{4e} | R ^{5ag} | R^{6c} | | N199 N200 | R^{1b} | \mathbb{R}^{3n} | $ m R^{4e}$ $ m R^{4c}$ | R ^{5mm} | R ^{6a} |
| N122 N123 | R^{1b} | \mathbb{R}^{3m} | R ⁴ | R ^{5ae} | R^{6a} | | N200 N201 | R^{1b} | R ³ 0 | R^{4c} | R ⁵ⁿⁿ | R^{6b} |
| | R^{1b} | \mathbb{R}^{3m} | R ⁴ f | R^{5af} | R^{6b} | | | R^{1b} | R ³⁰ | R^{4c} | R^{5nn} | R^{6c} |
| N124 N125 | R^{1b} | \mathbb{R}^{3m} | R ⁴ € | R ^{5ag} | R^{6a} | | N202 N203 | R^{1b} | \mathbb{R}^{3p} | R^{4e} | R ^{5mm} | R^{6b} |
| N125 N126 | R^{1b} | R^{3m} | R ⁴ € | R ^{5ag} | R^{6b} | | N203 N204 | R^{1b} | R^{3p} | R^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N120 N127 | R^{1b} | \mathbb{R}^{3m} | R ^{4f} | R^{5ag} | R^{6c} | 25 | N204 N205 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R ^{5mm} | R^{6b} |
| N127 N128 | R^{1b} | \mathbb{R}^{3i} | R^{4c} | R ^{5ah} | R^{6a} | 23 | N203 N206 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R^{5nn} | R^{6b} |
| N129 | R^{1b} | \mathbb{R}^{3j} | R^{4c} | R ^{5ai} | R^{6b} | | N207 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R ^{5mm} | R^{6b} |
| N130 | R^{1b} | \mathbb{R}^{3k} | R^{4c} | R^{5ak} | R^{6a} | | N208 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N130 | R^{1b} | R^{3k} | R^{4c} | R^{5ak} | R^{6b} | | N209 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R ⁵ⁿⁿ | R ⁶ 4 |
| N131 | R^{1b} | R^{3l} | R^{4c} | R ^{5ak} | R ^{6c} | | N210 | R^{1b} | R ³ 0 | R^{4c} | R ⁵ⁿⁿ | R^{6b} |
| N133 | R^{1b} | \mathbb{R}^{3i} | R^{4e} | R ^{5ah} | R^{6a} | 30 | N211 | R^{1b} | R ³ ° | R^{4c} | R^{5nn} | R^{6c} |
| N134 | R^{1b} | R^{3j} | R ^{4e} | R ^{5ai} | R ^{6b} | 30 | N212 | R^{1b} | R^{3p} | R ^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N135 | R^{1b} | R^{3k} | R^{4e} | R^{5ak} | R^{6a} | | N213 | R^{1b} | R^{3p} | R ^{4e} | R^{5nn} | R^{6b} |
| N136 | R^{1b} | \mathbb{R}^{3k} | R^{4e} | R^{5ak} | R^{6b} | | N214 | R^{1b} | R^{3q} | R^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N137 | R^{1b} | R^{3I} | R^{4e} | R^{5ak} | R ^{6c} | | N215 | R^{1b} | R^{3q} | R^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N138 | R^{1b} | \mathbb{R}^{3i} | R ^{4f} | R ^{5ah} | R^{6a} | | N216 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R ⁵ⁿⁿ | R^{6b} |
| N139 | R^{1b} | \mathbb{R}^{3j} | R^{4f} | R^{5ai} | R^{6b} | 2.5 | N217 | R^{1b} | \mathbb{R}^{3r} | R^{4e} | R^{5nn} | R^{6b} |
| N140 | \mathbb{R}^{1b} | \mathbb{R}^{3k} | R^{4f} | R^{5ak} | R^{6a} | 35 | N218 | R^{1b} | \mathbb{R}^{3n} | \mathbb{R}^{4c} | R^{5oo} | R^{6a} |
| N141 | \mathbb{R}^{1b} | \mathbb{R}^{3k} | R^{4f} | R^{5ak} | R^{6b} | | N219 | \mathbb{R}^{1b} | R^{3o} | \mathbb{R}^{4c} | R ⁵⁰⁰ | R^{6b} |
| N142 | R^{1b} | \mathbb{R}^{3l} | R^{4f} | R^{5ak} | R^{6c} | | N220 | R^{1b} | R^{3o} | \mathbb{R}^{4c} | R ⁵⁰⁰ | R^{6c} |
| N143 | R^{1b} | \mathbb{R}^{3m} | R^{4c} | R^{5ah} | R^{6a} | | N221 | R^{1b} | \mathbb{R}^{3p} | \mathbb{R}^{4e} | R ⁵⁰⁰ | R^{6b} |
| N144 | R^{1b} | \mathbb{R}^{3m} | R^{4c} | R^{5ai} | R^{6b} | | N222 | R^{1b} | R^{3p} | \mathbb{R}^{4e} | R^{5oo} | R^{6b} |
| N145 | R^{1b} | \mathbb{R}^{3m} | R^{4c} | R^{5ak} | R^{6a} | 40 | N223 | R^{1b} | R^{3q} | R^{4e} | R ⁵⁰⁰ | R^{6b} |
| N146 | R^{1b} | \mathbb{R}^{3m} | R^{4c} | R ^{5ak} | R^{6b} | 40 | N224 | R^{1b} | R^{3q} | R^{4e} | R ⁵⁰⁰ | R^{6b} |
| N147 | $R_{}^{1b}$ | \mathbb{R}^{3m} | R^{4c} | R^{5ak} | R^{6c} | | N225 | R^{1b} | \mathbb{R}^{3r} | R^{4e} | R ⁵⁰⁰ | R^{6b} |
| N148 | R^{1b} | \mathbb{R}^{3m} | R ^{4e} | R^{5ah} | R^{6a} | | N226 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R ⁵⁰⁰ | R^{6b} |
| N149 | R^{1b} | \mathbb{R}^{3m} | R ^{4e} | R^{5ai} | R^{6b} | | N227 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R ^{5pp} | R ^{6a} |
| N150 | R^{1b} | \mathbb{R}^{3m} | R^{4e} | R^{5ak} | R^{6a} R^{6b} | | N228 | R^{1b} | R ³⁰ | R^{4c} | R ^{5qq} | R^{6b} |
| N151 | R^{1b} | R^{3m} | R^{4e} | R ^{5ak} | | 45 | N229 | R^{1b} R^{1b} | R ³⁰ | R^{4c} R^{4e} | R ^{5qq} | R^{6c} R^{6b} |
| N152 | ${ m R}^{1b} \ { m R}^{1b}$ | R^{3m} R^{3m} | R^{4e} R^{4f} | R^{5ak} R^{5ah} | R^{6c} R^{6a} | 43 | N230 N231 | R^{1b} | \mathbb{R}^{3p} \mathbb{R}^{3p} | R ^{4e} | R ^{5qq} R ^{5qq} | R^{6b} |
| N153 N154 | R^{1b} | \mathbb{R}^{3m} | R ⁴ | R^{5ai} | R^{6b} | | N231 N232 | R^{1b} | \mathbb{R}^{3q} | R ^{4e} | R^{5qq} | R^{6b} |
| N154 N155 | R^{1b} | \mathbb{R}^{3m} | R ^{4f} | R^{5ak} | R^{6a} | | N232 N233 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R^{5qq} | R^{6b} |
| N155 N156 | R^{1b} | \mathbb{R}^{3m} | R ⁴ f | R^{5ak} | R^{6b} | | N233 N234 | R^{1b} | R^{3r} | R ^{4e} | R^{5qq} | R^{6b} |
| N150 N157 | R^{1b} | R^{3m} | R^{4f} | R^{5ak} | R 6c | | N235 | R^{1b} | \mathbb{R}^{3r} | R ^{4e} | R^{5qq} | R^{6b} |
| N157 | R^{1b} | \mathbb{R}^{3i} | R^{4c} | R^{5al} | R^{6a} | 50 | N233 N236 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R^{5pp} | R^{6a} |
| N159 | R^{1b} | \mathbb{R}^{3j} | R^{4c} | R ^{5am} | R^{6b} | 30 | N237 | R^{1b} | R ³ 0 | R^{4c} | R^{5qq} | R^{6b} |
| N160 | R^{1b} | \mathbb{R}^{3k} | R^{4c} | R ^{5an} | R^{6a} | | N238 | R^{1b} | R ³ 0 | R^{4c} | R^{5qq} | R^{6c} |
| N161 | R^{1b} | \mathbb{R}^{3k} | R^{4c} | R^{5an} | R^{6b} | | N239 | R^{1b} | R^{3p} | R ^{4e} | R^{5qq} | R^{6b} |
| N162 | R^{1b} | R^{3l} | R^{4c} | R ^{5an} | R^{6c} | | N240 | R^{1b} | \mathbb{R}^{3p} | R ^{4e} | R^{5qq} | R^{6b} |
| N163 | R^{1b} | R^{3i} | R^{4e} | R^{5al} | R^{6a} | | N241 | R^{1b} | \mathbb{R}^{3q} | R ^{4e} | R^{5qq} | R^{6b} |
| N164 | R^{1b} | \mathbb{R}^{3j} | R^{4e} | R ^{5am} | R^{6b} | | N242 | R^{1b} | \mathbb{R}^{3q} | R^{4e} | R^{5qq} | R^{6b} |
| N165 | \mathbb{R}^{1b} | \mathbb{R}^{3k} | R^{4e} | R^{5an} | R^{6a} | 55 | N243 | \mathbb{R}^{1b} | \mathbb{R}^{3r} | R^{4e} | R^{5qq} | R^{6b} |
| N166 | R^{1b} | \mathbb{R}^{3k} | R^{4e} | R ^{5an} | R^{6b} | | N244 | R^{1b} | \mathbb{R}^{3r} | \mathbb{R}^{4e} | R^{5qq} | R^{6b} |
| N167 | R^{1b} | \mathbb{R}^{3l} | R^{4e} | \mathbb{R}^{5an} | R^{6c} | | N245 | R^{1b} | \mathbb{R}^{3n} | \mathbb{R}^{4c} | R^{5rr} | R^{6a} |
| N168 | R^{1b} | \mathbb{R}^{3i} | R^{4f} | R^{5al} | R^{6a} | | N246 | R^{1b} | R^{3o} | \mathbb{R}^{4c} | R^{5rr} | R^{6b} |
| N169 | R^{1b} | \mathbb{R}^{3j} | R^{4f} | R^{5am} | R^{6b} | | N247 | R^{1b} | R^{3o} | R^{4c} | R^{5rr} | R^{6c} |
| N170 | R^{1b} | \mathbb{R}^{3k} | R^{4f} | R^{5an} | R^{6a} | | N248 | R^{1b} | R^{3p} | R^{4e} | R ⁵ rr | R^{6b} |
| N171 | R^{1b} | \mathbb{R}^{3k} | R^{4f} | R^{5an} | R^{6b} | 60 | N249 | R^{1b} | R^{3p} | \mathbb{R}^{4e} | R^{5rr} | R^{6b} |
| N172 | R^{1b} | \mathbb{R}^{3l} | R^{4f} | R^{5an} | R^{6c} | | N250 | R^{1b} | R^{3q} | R^{4e} | R_{-}^{5rr} | R^{6b} |
| N173 | R^{1b} | \mathbb{R}^{3n} | R^{4c} | R^{5f} | R^{6a} | | N251 | R^{1b} | R^{3q} | R^{4e} | R_{z}^{5rr} | R^{6b} |
| N174 | R^{1b} | R^{3o} | R^{4c} | R^{5gg} | R^{6b} | | N252 | R^{1b} | \mathbb{R}^{3r} | R^{4e} | R^{5rr} | R^{6b} |
| N175 | R^{1b} | R^{3o} | R^{4c} | R^{5gg} | R^{6c} | | N253 | R^{1b} | \mathbb{R}^{3r} | \mathbb{R}^{4e} | R^{5rr} | R^{6b} |
| | R^{1b} | \mathbb{R}^{3p} | \mathbb{R}^{4e} | R^{5ff} | R^{6b} | | N254 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | \mathbb{R}^{5ss} | R^{6b} |
| N176 | | | | | | | | | | | | |
| N176 N177 N178 | R^{1b} R^{1b} | R^{3p} R^{3q} | R^{4e} R^{4e} | R ^{5gg} R ^{5ff} | R^{6b} R^{6b} | 65 | N255 N256 | R^{1b} R^{1b} | R^{3t} R^{3g} | ${f R}^{4b}$ ${f R}^{4e}$ | R^{5ss} R^{5ss} | R^{6b} R^{6b} |

84TABLE N-continued

| | TABLE N-continued | | | | | | TABLE N-continued | | | | | |
|--------------|---------------------------|-------------------|-------------------|--------------------------------------|-------------------|-----|-------------------|-------------------|-------------------|------------------------------------|---------------------|-------------------|
| | R_1 | R_3 | R_4 | R_5 | R_6 | | | R_1 | R_3 | R_4 | R_5 | R_6 |
| N257 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R ^{5ss} | R^{6b} | | N335 | R^{1b} | R^{3t} | R^{4b} | R^{5bo} | R^{6b} |
| N258 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5tt} | R^{6b} | 5 | N336 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5bo} | R^{6b} |
| N259 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5tt} | R^{6b} | | N337 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5bo} | R^{6b} |
| N260 | R^{1b} | R^{3g} | R^{4e} | R^{5tt} | R^{6b} | | N338 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bp} | R^{6b} |
| N261 | R^{1b} | R^{3h} | R^{4e} | R^{5tt} | R^{6b} | | N339 | R^{1b} | R^{3t} | R^{4b} | R^{5bp} | R^{6b} |
| N262 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5uu} | R^{6b} | | N340 | R^{1b} | R^{3g} | R^{4e} | R^{5bp} | R^{6b} |
| N263 | R^{1b} | R^{3t} | R^{4b} | R^{5uu} | R^{6b} | | N341 | R^{1b} | R^{3h} | R^{4e} | R^{5bp} | R^{6b} |
| N264 | R^{1b} | R ^{3g} | R^{4e} | R^{5uu} | R^{6b} | 10 | N342 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bq} | R^{6b} |
| N265 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5uu} | R^{6b} | | N343 | R^{1b} | R_{2}^{3t} | R^{4b} | R^{5bq} | R^{6b} |
| N266 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5vv} | R^{6b} | | N344 | R^{1b} | R^{3g} | R^{4e} | R^{5bq} | R^{6b} |
| N267 | R^{1b} | R^{3t} | R^{4b} | R ^{5vv} | R^{6b} | | N345 | R^{1b} | R^{3h} | R ^{4e} | R^{5bq} | R^{6b} |
| N268 | R^{1b} | \mathbb{R}^{3g} | R ^{4e} | R ^{5νν} | R^{6b} | | N346 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5br} | R^{6b} |
| N269 | R^{1b} R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5νν} R ^{5νν} | R^{6b} R^{6b} | | N347 | R^{1b} R^{1b} | R^{3t} | R^{4b} | R^{5bq} R^{5bq} | R^{6b} R^{6b} |
| N270 | R^{1b} | R^{3s} R^{3t} | R^{4a} R^{4b} | R ^{5ww} | R^{6b} | 15 | N348 | R^{1b} | R^{3g} R^{3h} | R ^{4e} | R^{5bq} | R^{6b} |
| N271 | R^{1b} | R ^{3g} | R ^{4e} | R ^{5ww} | R^{6b} | | N349 N350 | R^{1b} | R^{3s} | R ^{4e} R ^{4a} | R^{5bs} | R^{6b} |
| N272 N273 | R^{1b} | \mathbb{R}^{3h} | R ⁴ e | R ^{5ww} | R^{6b} | | N350 N351 | R^{1b} | R^{3t} | R^{4b} | R^{5bs} | R^{6b} |
| N273 N274 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5xx} | R^{6b} | | N351 N352 | R^{1b} | R^{3g} | R ^{4e} | R^{5bs} | R^{6b} |
| N274 N275 | R^{1b} | R^{3t} | R^{4b} | R ^{5xx} | R^{6b} | | N352 N353 | R^{1b} | R^{3h} | R ^{4e} | R^{5bs} | R^{6b} |
| N275 N276 | R^{1b} | R^{3g} | R ^{4e} | R ^{5xx} | R^{6b} | | N354 | R^{1b} | R^{3s} | R^{4a} | R^{5bt} | R^{6b} |
| N270 N277 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R ^{5xx} | R^{6b} | 20 | N354 N355 | R^{1b} | R^{3t} | R^{4b} | R^{5bt} | R^{6b} |
| N277 N278 | R^{1b} | R^{3s} | R^{4a} | R ^{5zz} | R^{6b} | | N356 | R^{1b} | R^{3g} | R^{4e} | R^{5bt} | R^{6b} |
| N279 | R^{1b} | R^{3t} | R^{4b} | R ^{5zz} | R^{6b} | | N357 | R^{1b} | R^{3h} | R^{4e} | R^{5bt} | R^{6b} |
| N279 N280 | R^{1b} | R^{3g} | R ^{4e} | R ^{5zz} | R^{6b} | | N357 N358 | R^{1b} | R^{3s} | R^{4a} | R^{5bu} | R^{6b} |
| N280 N281 | R^{1b} | R^{3h} | R ^{4e} | R ^{5zz} | R^{6b} | | N358 N359 | R^{1b} | R^{3t} | R^{4b} | R ^{5bu} | R^{6b} |
| N281 N282 | R^{1b} | R^{3s} | R^{4a} | R^{5ba} | R^{6b} | | N360 | R^{1b} | R^{3g} | R^{4e} | R^{5bu} | R^{6b} |
| N283 | R^{1b} | R^{3t} | R^{4b} | R ^{5ba} | R^{6b} | 25 | N361 | R^{1b} | R^{3h} | R^{4e} | R^{5bu} | R^{6b} |
| N284 | R^{1b} | R^{3g} | R ⁴ e | R ^{5ba} | R^{6b} | 23 | N362 | R^{1b} | R^{3s} | R^{4a} | R^{5bv} | R^{6b} |
| N285 | R^{1b} | R^{3h} | R^{4e} | R ^{5ba} | R ^{6b} | | N363 | R^{1b} | R^{3t} | R^{4b} | R^{5bv} | R^{6b} |
| N286 | R^{1b} | R^{3s} | R^{4a} | R^{5bc} | R^{6b} | | N364 | R^{1b} | R^{3g} | R ^{4e} | R^{5bv} | R^{6b} |
| N287 | R^{1b} | R^{3t} | R^{4b} | R ^{5bc} | R^{6b} | | N365 | R^{1b} | R^{3h} | R ^{4e} | R ^{5bv} | R^{6b} |
| N288 | R^{1b} | R^{3g} | R ^{4e} | R^{5bc} | R ^{6b} | | N366 | R^{1b} | R^{3s} | R^{4a} | R^{5bw} | R^{6b} |
| N289 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5bc} | R^{6b} | 30 | N367 | R^{1b} | R^{3t} | R^{4b} | R^{5bw} | R^{6b} |
| N290 | R^{1b} | R^{3s} | R^{4a} | R ^{5bd} | R^{6b} | 30 | N368 | R^{1b} | R ^{3g} | R^{4e} | R ^{5bw} | R^{6b} |
| N291 | R^{1b} | R^{3t} | R^{4b} | R^{5bd} | R ^{6b} | | N369 | R^{1b} | R^{3h} | R^{4e} | R^{5bw} | R^{6b} |
| N292 | R^{1b} | R ^{3g} | R ^{4e} | R^{5bd} | R^{6b} | | N370 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bx} | R^{6b} |
| N293 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5bd} | R^{6b} | | N371 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5bx} | R^{6b} |
| N294 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5be} | R ^{6b} | | N372 | R^{1b} | R^{3g} | R^{4e} | R^{5bx} | R^{6b} |
| N295 | R^{1b} | R^{3t} | R^{4b} | R^{5be} | R^{6b} | 2.5 | N373 | R^{1b} | R^{3h} | R^{4e} | R^{5bx} | R^{6b} |
| N296 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5be} | R^{6b} | 35 | N374 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5by} | R^{6b} |
| N297 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5be} | R^{6b} | | N375 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5by} | R^{6b} |
| N298 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bf} | R^{6b} | | N376 | R^{1b} | R^{3g} | R^{4e} | R^{5by} | R^{6b} |
| N299 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5bf} | R^{6b} | | N377 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5by} | R^{6b} |
| N300 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | \mathbb{R}^{5bf} | R^{6b} | | N378 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bz} | R^{6b} |
| N301 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5bf} | R^{6b} | | N379 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5bz} | R^{6b} |
| N302 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bg} | R^{6b} | 40 | N380 | R^{1b} | R^{3g} | R^{4e} | R^{5bz} | R^{6b} |
| N303 | R^{1b} | R^{3t} | R^{4b} | R^{5bg} | R^{6b} | | N381 | R^{1b} | R^{3h} | R^{4e} | R^{5bz} | R^{6b} |
| N304 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5bg} | R^{6b} | | N382 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ca} | R^{6b} |
| N305 | R^{1b} | R^{3h} | R^{4e} | R^{5bg} | R^{6b} | | N383 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ca} | R^{6b} |
| N306 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5bh} | R^{6b} | | N384 | R^{1b} | R^{3g} | R^{4e} | R^{5ca} | R^{6b} |
| N307 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5bh} | R^{6b} | | N385 | R^{1b} | R^{3h} | R^{4e} | R^{5ca} | R^{6b} |
| N308 | R^{1b} | R ^{3g} | R^{4e} | R ^{5bh} | R^{6b} | 45 | N386 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5cb} | R^{6b} |
| N309 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R^{5bh} | R^{6b} | | N387 | R^{1b} | R^{3t} | R^{4b} | R ^{5cb} | R^{6b} |
| N310 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5bi} | R^{6b} | | N388 | R^{1b} | R^{3g} | R^{4e} | R ^{5cb} | R^{6b} |
| N311 | R^{1b} | R^{3t} | R^{4b} | R ^{5bi} | R^{6b} | | N389 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R^{5cb} | R^{6b} |
| N312 | R^{1b} | R^{3g} | R ^{4e} | R ^{5bi} | R^{6b} | | N390 | R^{1b} | R^{3s} | R^{4a} | R^{5cd} R^{5cd} | R^{6b} |
| N313 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3h} R^{3s} | R^{4e} | R^{5bi} R^{5bj} | R^{6b} R^{6b} | _ | N391 | R^{1b} | R^{3t} | R^{4b} | R ^{5cd} | R^{6b} R^{6b} |
| N314 | R^{1b} | R^{3t} | R^{4a} R^{4b} | R^{5bj} R^{5bj} | R^{6b} | 50 | N392 | R^{1b} R^{1b} | R^{3g} R^{3h} | $ m R^{4e}$ $ m R^{4e}$ | R ^{5cd} | R^{6b} |
| N315 | R^{1b} R^{1b} | \mathbb{R}^{3g} | R^{4e} R^{4e} | R^{5bj} R^{5bj} | R^{6b} | | N393 | R^{1b} R^{1b} | R^{3n} R^{3s} | R^{4a} R^{4a} | R ^{5ce} | R^{6b} |
| N316 | R ¹⁵ | \mathbb{R}^{3h} | R^{4e} | R^{5bj} | R^{6b} | | N394 | R^{1b} | R^{3t} | R^{4b} | R ^{5ce} | R^{6b} |
| N317 | R ¹⁵ | R^{3n} R^{3s} | R^{4a} | R^{5bk} | R ⁶⁵ | | N395 | R^{1b} R^{1b} | R ³ g | R^{4e} R^{4e} | R ^{5ce} | R^{6b} |
| N318 N319 | R^{1b} R^{1b} | R^{3t} R^{3t} | R^{4b} | R^{5bk} | R^{6b} | | N396 | R^{1b} R^{1b} | R^{3k} R^{3h} | R^{4e} | R ^{5ce} | R^{6b} |
| | R^{1b} | R^{3g} | R ^{4e} | R ^{5bk} | R^{6b} | | N397 N398 | R^{1b} | R^{3s} | R^{4a} | R ^{5cf} | R^{6b} |
| N320 N321 | R^{1b} | R^{3h} | R ^{4e} | R ^{5bk} | R^{6b} | 55 | N398 N399 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5cf} | R^{6b} |
| N321 N322 | R^{1b} | R^{3s} | R^{4a} | R ^{5bl} | R ^{6b} | | N399 N400 | R^{1b} | R^{3g} | R^{4e} | R ^{5cf} | R^{6b} |
| N322 N323 | R^{1b} | R^{3t} | R^{4b} | R^{5bl} | R^{6b} | | N400 N401 | R^{1b} | R^{3h} | R^{4e} | R ^{5cf} | R^{6b} |
| N323 N324 | R^{1b} | R^{3g} | R ^{4e} | R^{5bl} | R^{6b} | | N401 N402 | R^{1b} | R^{3s} | R^{4a} | R ⁵ eg | R^{6b} |
| N324 N325 | R^{1b} | R^{3h} | R ^{4e} | R^{5bl} | R^{6b} | | N402 N403 | R^{1b} | R^{3t} | R^{4b} | R ^{5cg} | R^{6b} |
| N325 N326 | R^{1b} | R^{3s} | R^{4a} | R^{5bm} | R^{6b} | | N403 N404 | R^{1b} | R^{3g} | R^{4e} | R ^{5cg} | R^{6b} |
| N320 N327 | R^{1b} | R^{3t} | R^{4b} | R^{5bm} | R^{6b} | 60 | N404 N405 | R^{1b} | R^{3h} | R^{4e} | R ^{5eg} | R^{6b} |
| N327 N328 | R^{1b} | R ^{3g} | R^{4e} | R^{5bm} | R^{6b} | | N405 N406 | R^{1b} | R^{3s} | R^{4a} | R ^{5ch} | R^{6b} |
| N328 N329 | R^{1b} | R^{3h} | R^{4e} | R^{5bm} | R^{6b} | | N400 N407 | R^{1b} | R^{3t} | R^{4b} | R^{5ch} | R^{6b} |
| N329 N330 | R^{1b} | R^{3s} | R^{4a} | R^{5bn} | R^{6b} | | N407 N408 | R^{1b} | R^{3g} | R^{4e} | R^{5ch} | R^{6b} |
| N330 N331 | R^{1b} | R^{3t} | R^{4b} | R^{5bn} | R^{6b} | | N408 N409 | R^{1b} | R^{3h} | R^{4e} | R ^{5ch} | R^{6b} |
| N331 N332 | R^{1b} | R^{3g} | R^{4e} | R^{5bn} | R^{6b} | | N410 | R^{1b} | R^{3s} | R^{4a} | R ^{5ci} | R^{6b} |
| N332 N333 | R^{1b} | R^{3h} | R ^{4e} | R^{5bn} | R^{6b} | 65 | N410 N411 | R^{1b} | R^{3t} | R^{4b} | R ^{5ci} | R^{6b} |
| N333 N334 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5bo} | R^{6b} | 0.5 | N411 N412 | R^{1b} | R^{3g} | R^{4e} | R^{5ci} | R^{6b} |
| 11334 | 1/ | K | V. | Κ. | V | | 19412 | IX. | V. | I. | V | 1. |

| 85 | 86 |
|-------------------|-------------------|
| TABLE N-continued | TABLE N-continued |

| | R_1 | R_3 | R_4 | R_5 | R_6 | _ | | R_1 | R_3 | R_4 | R_5 | R ₆ |
|--------------|-----------------------------|-------------------------------------|------------------------------------|---------------------|-------------------|----|--------------|---------------------------|-------------------|-------------------|--------------------------------------|------------------------------------|
| N413 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | \mathbb{R}^{5ci} | R^{6b} | | N491 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5dc} | R^{6b} |
| N413 | R^{1b} | R^{3s} | R^{4a} | R^{5cj} | R ^{6b} | 5 | N492 | R^{1b} | R^{3g} | R^{4e} | R^{5dc} | R^{6b} |
| N415 | R^{1b} | R^{3t} | R^{4b} | \mathbb{R}^{5cj} | R^{6b} | | N493 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5dc} | R^{6b} |
| N416 | R^{1b} | R^{3g} | R ^{4e} | R^{5cj} | R^{6b} | | N494 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5de} | R^{6b} |
| N417 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | \mathbb{R}^{5cj} | R^{6b} | | N495 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5de} | R^{6b} |
| N418 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | \mathbb{R}^{5ck} | R^{6b} | | N496 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | \mathbb{R}^{5de} | R^{6b} |
| N419 | R^{1b} | R^{3t} | R^{4b} | R^{5ck} | R^{6b} | | N497 | R^{1b} | R^{3h} | R^{4e} | R^{5de} | R^{6b} |
| N420 | R^{1b} | R^{3g} | R^{4e} | R^{5ck} | R^{6b} | 10 | N498 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5df} | R^{6b} |
| N421 | R^{1b} | R^{3h} | R^{4e} | R ^{5ck} | R^{6b} | | N499 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5df} | R^{6b} |
| N422 | R^{1b} | R ^{3s} | R^{4a} | R ^{5cl} | R^{6b} | | N500 | R^{1b} | R^{3g} | R ^{4e} | R ^{5df} | R^{6b} |
| N423 | R^{1b} | R^{3t} | R^{4b} | R ^{5cl} | R^{6b} R^{6b} | | N501 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5df} | R^{6b} R^{6b} |
| N424 | R^{1b} R^{1b} | R^{3g} R^{3h} | R^{4e} R^{4e} | R^{5cl} R^{5cl} | R^{6b} | | N502 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3s} R^{3t} | R^{4a} R^{4b} | R ^{5dg} R ^{5dg} | R^{6b} |
| N425 N426 | R ¹ | \mathbb{R}^{3s} | R^{4a} | R ^{5cm} | R^{6b} | | N503 N504 | R^{1b} | R^{3g} | R ^{4e} | R ^{5dg} | R^{6b} |
| N420 N427 | R^{1b} | R^{3t} | R^{4b} | R^{5cm} | R^{6b} | 15 | N504 N505 | R^{1b} | R^{3h} | R^{4e} | R^{5dg} | R^{6b} |
| N428 | R^{1b} | R^{3g} | R ^{4e} | R ^{5cm} | R^{6b} | | N505 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5dh} | R^{6b} |
| N429 | R^{1b} | R^{3h} | R ^{4e} | R ^{5cm} | R^{6b} | | N507 | R^{1b} | R^{3t} | R^{4b} | R^{5dh} | R^{6b} |
| N430 | R^{1b} | R^{3s} | R^{4a} | R ^{5cn} | R^{6b} | | N508 | R^{1b} | R^{3g} | R^{4e} | R^{5dh} | R^{6b} |
| N431 | R^{1b} | R^{3t} | R^{4b} | R ^{5cn} | R^{6b} | | N509 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5dh} | R^{6b} |
| N432 | R^{1b} | R^{3g} | R^{4e} | R ^{5cn} | R^{6b} | | N510 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5di} | R^{6b} |
| N433 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | \mathbb{R}^{5cn} | R^{6b} | 20 | N511 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | \mathbb{R}^{5di} | R^{6b} |
| N434 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5co} | R^{6b} | | N512 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | \mathbb{R}^{5di} | R^{6b} |
| N435 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5co} | R^{6b} | | N513 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5di} | R^{6b} |
| N436 | R^{1b} | R^{3g} | R^{4e} | R^{5co} | R^{6b} | | N514 | R^{1b} | R^{3s} | R^{4a} | R^{5dj} | R^{6b} |
| N437 | R^{1b} | R^{3h} | \mathbb{R}^{4e} | R ^{5co} | R^{6b} | | N515 | R^{1b} | R^{3t} | \mathbb{R}^{4b} | R^{5dj} | R^{6b} |
| N438 | $R_{\perp L}^{1b}$ | R_{2}^{3s} | R^{4a} | R^{5cp} | R ^{6b} | | N516 | R^{1b} | R^{3g} | R^{4e} | $R^{5dj}_{\epsilon,\nu}$ | $R_{\epsilon_b}^{6b}$ |
| N439 | R^{1b} | R^{3t} | R^{4b} | R^{5cp} | R^{6b} | 25 | N517 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R^{5dj} | R ^{6b} |
| N440 | R^{1b} | R^{3g} | R ^{4e} | R^{5cp} | R^{6b} | | N518 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5dk} | $rac{R^{6b}}{R^{6b}}$ |
| N441 | ${ m R}^{1b}$ ${ m R}^{1b}$ | R^{3h} R^{3s} | R^{4e} R^{4a} | R^{5cp} R^{5cq} | R^{6b} R^{6b} | | N519 | R^{1b} R^{1b} | R^{3t} R^{3g} | R^{4b} R^{4e} | ${ m R}^{5dk} \ { m R}^{5dk}$ | R^{6b} |
| N442 N443 | R^{1b} | R^{3t} | R^{4b} | R^{5cq} | R^{6b} | | N520 N521 | R^{1b} | R^{3h} | R^{4e} | R^{5dk} | R^{6b} |
| N443 N444 | R^{1b} | R^{3g} | R^{4e} | R^{5cq} | R^{6b} | | N521 N522 | R^{1b} | R^{3s} | R^{4a} | R^{5dl} | R^{6b} |
| N445 | R^{1b} | R^{3h} | R^{4e} | R^{5cq} | R^{6b} | 30 | N523 | R^{1b} | R^{3t} | R^{4b} | R^{5dl} | R^{6b} |
| N446 | R^{1b} | R^{3s} | R^{4a} | R ^{5cr} | R^{6b} | 30 | N524 | R^{1b} | R ^{3g} | R^{4e} | R^{5dl} | R^{6b} |
| N447 | R^{1b} | R^{3t} | R^{4b} | R ^{5cr} | R^{6b} | | N525 | R^{1b} | R^{3h} | R^{4e} | R ^{5dl} | R^{6b} |
| N448 | R^{1b} | R^{3g} | R^{4e} | R^{5cr} | R^{6b} | | N526 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5dm} | R^{6b} |
| N449 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5cr} | R^{6b} | | N527 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5dm} | R^{6b} |
| N450 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5cs} | R^{6b} | | N528 | R^{1b} | R^{3g} | R^{4e} | R^{5dm} | R^{6b} |
| N451 | R^{1b} | R^{3t} | R^{4b} | R^{5cs} | R^{6b} | 35 | N529 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5dm} | R^{6b} |
| N452 | R^{1b} | R^{3g} | \mathbb{R}^{4e} | R^{5cs} | R^{6b} | 33 | N530 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5dn} | R^{6b} |
| N453 | R^{1b} | R^{3h} | R^{4e} | R^{5cs} | R ^{6b} | | N531 | R^{1b} | R_{2}^{3t} | R^{4b} | R^{5dn} | R ^{6b} |
| N454 | R^{1b} | R ^{3s} | R^{4a} | R ^{5ct} | R ^{6b} | | N532 | R^{1b} | R^{3g} | R ^{4e} | R^{5dn} | R ^{6b} |
| N455 | R^{1b} | R^{3t} | R^{4b} | R^{5ct} R^{5ct} | R^{6b} | | N533 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R ^{5dn} | R ^{6b} R ^{6b} |
| N456 | R^{1b} R^{1b} | R^{3g} R^{3h} | R ^{4e} R ^{4e} | R ^{5ct} | R^{6b} R^{6b} | | N534 | R^{1b} R^{1b} | R^{3s} R^{3t} | R^{4a} R^{4b} | R ^{5do} R ^{5do} | R^{6b} |
| N457 N458 | R^{1b} | R^{3s} | R^{4a} | R ^{5cu} | R^{6b} | 40 | N535 N536 | R^{1b} | R^{3g} | R ^{4e} | R ^{5do} | R^{6b} |
| N459 | R^{1b} | R^{3t} | R^{4b} | R^{5cu} | R^{6b} | | N537 | R^{1b} | R^{3h} | R ^{4e} | R ^{5do} | R^{6b} |
| N459 N460 | R^{1b} | R ^{3g} | R ^{4e} | R ^{5cu} | R^{6b} | | N538 | R^{1b} | R^{3s} | R^{4a} | R^{5dp} | R^{6b} |
| N461 | R ¹ | R^{3h} | R ^{4e} | R ^{5cu} | R^{6b} | | N539 | R^{1b} | R^{3t} | R^{4b} | R^{5dp} | R 6b |
| N462 | R^{1b} | R^{3s} | R^{4a} | R ^{5cv} | R^{6b} | | N540 | R^{1b} | R^{3g} | R^{4e} | R^{5dp} | R^{6b} |
| N463 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5cv} | R^{6b} | | N541 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5dp} | R^{6b} |
| N464 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5cv} | R^{6b} | 45 | N542 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5dq} | R^{6b} |
| N465 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5cv} | R^{6b} | | N543 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5dq} | R^{6b} |
| N466 | R^{1b} | R^{3s} | R^{4a} | R^{5cw} | R^{6b} | | N544 | R^{1b} | R^{3g} | R^{4e} | R^{5dq} | R^{6b} |
| N467 | R^{1b} | R^{3t} | \mathbb{R}^{4b} | R ^{5cw} | R^{6b} | | N545 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R^{5dq} | R^{6b} |
| N468 | R^{1b} | R^{3g} | R ^{4e} | R ^{5cw} | R^{6b} | | N546 | R^{1b} | R^{3s} | R^{4a} | R ^{5dr} | R^{6b} |
| N469 | R^{1b} | R^{3h} | R^{4e} | R ^{5cw} | R^{6b} | | N547 | R^{1b} | R^{3t} | R^{4b} | R^{5dr} | R^{6b} |
| N470 | R^{1b} | R^{3s} | R^{4a} R^{4b} | R^{5cx} R^{5cx} | R^{6b} R^{6b} | 50 | N548 | ${f R}^{1b} \ {f R}^{1b}$ | R^{3g} R^{3h} | R ^{4e} | ${ m R}^{5dr} \ { m R}^{5dr}$ | R^{6b} R^{6b} |
| N471 N472 | R^{1b} R^{1b} | \mathbb{R}^{3t} \mathbb{R}^{3g} | R ^{4e} | R ^{5cx} | R^{6b} | | N549 | R^{1b} R^{1b} | R^{3n} R^{3s} | R^{4e} R^{4a} | R^{5ds} | R^{6b} |
| N472 N473 | R^{1b} | R^{3h} | R ^{4e} | R ^{5cx} | R^{6b} | | N550 N551 | R ¹⁶ | R^{3t} | R^{4b} | R^{5ds} | R^{6b} |
| N473 N474 | R^{1b} | R^{3s} | R^{4a} | R^{5cy} | R^{6b} | | N551 N552 | R^{1b} | R^{3g} | R ^{4e} | R^{5ds} | R^{6b} |
| N474 N475 | R^{1b} | R^{3t} | R^{4b} | R ^{5cy} | R^{6b} | | N553 | R^{1b} | R^{3h} | $ m R^{4e}$ | R^{5ds} | R^{6b} |
| N475 N476 | R^{1b} | R^{3g} | R^{4e} | R ^{5cy} | R^{6b} | | N554 | R^{1b} | R^{3s} | R^{4a} | R^{5dt} | R^{6b} |
| N477 | R^{1b} | R^{3h} | R^{4e} | R^{5cy} | R^{6b} | 55 | N555 | R^{1b} | R^{3t} | R^{4b} | R^{5dt} | R^{6b} |
| N478 | R^{1b} | R^{3s} | R^{4a} | R ^{5cz} | R^{6b} | | N556 | R^{1b} | R^{3g} | \mathbb{R}^{4e} | R^{5dt} | R^{6b} |
| N479 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5cz} | R^{6b} | | N557 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5dt} | R^{6b} |
| N480 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5cz} | R^{6b} | | N558 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | \mathbb{R}^{5du} | R^{6b} |
| N481 | R^{1b} | R^{3h} | \mathbb{R}^{4e} | R^{5cz} | R^{6b} | | N559 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5du} | R^{6b} |
| N482 | R^{1b} | R^{3s} | R^{4a} | R^{5da} | R^{6b} | 60 | N560 | R^{1b} | R^{3g} | R^{4e} | R^{5du} | R^{6b} |
| N483 | R^{1b} | R^{3t} | \mathbb{R}^{4b} | R^{5da} | R ^{6b} | 60 | N561 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5du} | R^{6b} |
| N484 | R^{1b} | R ^{3g} | R ^{4e} | R ^{5da} | R^{6b} | | N562 | R^{1b} | R^{3s} | R ^{4a} | R^{5dv} | R^{6b} |
| N485 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5da} | R^{6b} | | N563 | R^{1b} | R^{3t} | R^{4b} | R^{5dv} | R^{6b} |
| N486 | R^{1b} | R^{3s} | R^{4a} | R^{5db} | R ^{6b} | | N564 | R^{1b} | R^{3g} | R ^{4e} | R^{5dv} | R^{6b} |
| N487 | R^{1b} R^{1b} | R^{3t} | R^{4b} R^{4e} | R^{5db} R^{5db} | R^{6b} R^{6b} | | N565 | R^{1b} R^{1b} | R^{3h} R^{3s} | R^{4e} R^{4a} | R^{5dv} R^{5dw} | R^{6b} R^{6b} |
| N488 | R^{1b} R^{1b} | R^{3g} R^{3h} | R ^{4e} | R^{5db} R^{5db} | R^{6b} | 65 | N566 | R^{1b} R^{1b} | R^{3s} R^{3t} | R^{4b} | R ^{5dw} | R^{6b} |
| N489 | R^{1b} | R^{3s} | R^{4a} | R ^{5dc} | R^{6b} | رن | N567 | R^{1b} | R ³ g | R ^{4e} | R ^{5dw} | R^{6b} |
| N490 | K." | K | Κ | K | K. | | N568 | к." | V.s | K. | K | K |
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|--------------|--------------------|-------------------|-------------------|--------------------------------------|-------------------|-----|--------------|-------------------|-------------------|-------------------|---------------------|-------------------|
| | R_1 | R ₃ | R ₄ | R ₅ | R_6 | | | R_1 | R ₃ | R ₄ | R ₅ | R ₆ |
| N5.60 | R ^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5dw} | R ^{6b} | | NI647 | R ^{1b} | \mathbb{R}^{3t} | R ^{4b} | R ^{bet} | R ^{6b} |
| N569 N570 | R^{1b} | R^{3s} | R^{4a} | R^{5dx} | R^{6b} | 5 | N647 N648 | R^{1b} | R ^{3g} | R^{4e} | R ^{bet} | R ^{6b} |
| N570 N571 | R^{1b} | R^{3t} | R^{4b} | R^{5dx} | R^{6b} | , | N649 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R ^{bet} | R ^{6b} |
| N571 N572 | R^{1b} | R ^{3g} | R ^{4e} | R^{5dx} | R^{6b} | | N650 | R^{1b} | R^{3s} | R^{4a} | R ^{5eu} | R^{6b} |
| N572 N573 | R^{1b} | R^{3h} | R ^{4e} | R^{5dx} | R^{6b} | | N651 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5eu} | R^{6b} |
| N574 | R^{1b} | R^{3s} | R^{4a} | R ^{5ea} | R^{6b} | | N652 | R^{1b} | R^{3g} | R ^{4e} | R ^{5eu} | R ^{6b} |
| N575 | R^{1b} | R^{3t} | R^{4b} | R ^{5ea} | R^{6b} | | N653 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5eu} | R^{6b} |
| N576 | R^{1b} | R ^{3g} | R ^{4e} | R ^{5ea} | R^{6b} | 10 | N654 | R^{1b} | R^{3s} | R^{4a} | R ^{5ev} | R^{6b} |
| N577 | R^{1b} | R^{3h} | R ⁴ € | R ^{5ea} | R^{6b} | 10 | N655 | R^{1b} | R^{3t} | R^{4b} | R ^{5ev} | R^{6b} |
| N578 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5eb} | R^{6b} | | N656 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5ev} | R^{6b} |
| N579 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | \mathbb{R}^{5eb} | R^{6b} | | N657 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ev} | R^{6b} |
| N580 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | \mathbb{R}^{5eb} | R^{6b} | | N658 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ex} | R^{6b} |
| N581 | \mathbb{R}^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | \mathbb{R}^{5eb} | R^{6b} | | N659 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5ex} | R^{6b} |
| N582 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5ec} | R^{6b} | 15 | N660 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R ^{5ex} | R^{6b} |
| N583 | \mathbb{R}^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ec} | R^{6b} | 13 | N661 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ex} | R^{6b} |
| N584 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | \mathbb{R}^{5ec} | R^{6b} | | N662 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ey} | R^{6b} |
| N585 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | \mathbb{R}^{5ec} | R^{6b} | | N663 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ey} | R^{6b} |
| N586 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | \mathbb{R}^{5ed} | R^{6b} | | N664 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5ey} | R^{6b} |
| N587 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ed} | R^{6b} | | N665 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ey} | R^{6b} |
| N588 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5ed} | R^{6b} | • . | N666 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5ez} | R^{6b} |
| N589 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | \mathbb{R}^{5ed} | R^{6b} | 20 | N667 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ez} | R^{6b} |
| N590 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5ef} | R^{6b} | | N668 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R ^{5ez} | R^{6b} |
| N591 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ef} | R^{6b} | | N669 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ez} | R^{6b} |
| N592 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5ef} | R^{6b} | | N670 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fa} | R^{6b} |
| N593 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R ^{5ef} | R^{6b} | | N671 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5fa} | R^{6b} |
| N594 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | \mathbb{R}^{5eg} | R^{6b} | | N672 | R^{1b} | R^{3g} | R^{4e} | R^{5fa} | R^{6b} |
| N595 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5eg} | R^{6b} | 25 | N673 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fa} | R^{6b} |
| N596 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | \mathbb{R}^{5eg} | R^{6b} | | N674 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fb} | R^{6b} |
| N597 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5eg} | R^{6b} | | N675 | R^{1b} | R^{3t} | R^{4b} | R^{5fb} | R^{6b} |
| N598 | R^{1b} | R^{3s} | \mathbb{R}^{4a} | \mathbb{R}^{5eh} | R^{6b} | | N676 | R^{1b} | R^{3g} | R^{4e} | R^{5fb} | R^{6b} |
| N599 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5eh} | R^{6b} | | N677 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fb} | R^{6b} |
| N600 | R^{1b} | R^{3g} | R^{4e} | R^{5eh} | R^{6b} | | N678 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fc} | R^{6b} |
| N601 | R^{1b} | R^{3h} | R^{4e} | \mathbb{R}^{5eh} | R^{6b} | 30 | N679 | R^{1b} | R^{3t} | R^{4b} | R^{5fc} | R^{6b} |
| N602 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ei} | R^{6b} | | N680 | R^{1b} | R^{3g} | R^{4e} | R ^{5fc} | R^{6b} |
| N603 | R^{1b} | R^{3t} | R^{4b} | R^{5ei} | R^{6b} | | N681 | R^{1b} | R^{3h} | R^{4e} | R^{5fc} | R^{6b} |
| N604 | R^{1b} | R^{3g} | R^{4e} | R^{5ei} | R^{6b} | | N682 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fd} | R^{6b} |
| N605 | $R_{\perp r}^{1b}$ | \mathbb{R}^{3h} | R^{4e} | R^{5ei} | R^{6b} | | N683 | R^{1b} | R^{3t} | R^{4b} | R ^{5fd} | R^{6b} |
| N606 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ej} | R^{6b} | | N684 | R^{1b} | R^{3g} | R^{4e} | R^{5fd} | R^{6b} |
| N607 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5ej} | R^{6b} | 35 | N685 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fd} | R^{6b} |
| N608 | R_{ij}^{1b} | R^{3g} | \mathbb{R}^{4e} | R^{5ej} | R^{6b} | | N686 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5fe} | R ^{6b} |
| N609 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R^{5ej} | R^{6b} | | N687 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5fe} | R ^{6b} |
| N610 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5ek} | R^{6b} | | N688 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5fe} | R^{6b} |
| N611 | R ^{1b} | R^{3t} | R^{4b} | R ^{5ej} | R^{6b} | | N689 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5fe} | R ^{6b} |
| N612 | R^{1b} | R^{3g} | R ^{4e} | R ^{5ej} | R^{6b} | | N690 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5/g} | R ^{6b} |
| N613 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ej} | R^{6b} | 40 | N691 | R^{1b} | R^{3t} | R^{4b} | R ^{5fg} | R ^{6b} |
| N614 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5el} | R^{6b} R^{6b} | 70 | N692 | R^{1b} | R^{3g} | R ^{4e} | R ^{5fg} | R^{6b} R^{6b} |
| N615 | R^{1b} R^{1b} | R^{3t} | R^{4b} R^{4e} | R ^{5el} | R^{6b} | | N693 | R^{1b} R^{1b} | \mathbb{R}^{3h} | R^{4e} | R ^{5fg} | R^{6b} |
| N616 | R^{1b} | R^{3g} R^{3h} | R ^{4e} | R ^{5el} R ^{5el} | R^{6b} | | N694 | R ¹⁵ | R^{3s} R^{3t} | R^{4a} R^{4b} | R^{5fh} R^{5fh} | R^{6b} |
| N617 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ^{5em} | R^{6b} | | N695 | R^{1b} | R ^{3g} | R ^{4e} | R^{5fh} | R^{6b} |
| N618 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5em} | R^{6b} | | N696 | R^{1b} | R^{3h} | R^{4e} | R^{5fh} | R ^{6b} |
| N619 | R^{1b} | R ^{3g} | R ^{4e} | R ^{5em} | R^{6b} | 45 | N697 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fi} | R^{6b} |
| N620 N621 | R^{1b} | \mathbb{R}^{3h} | R ^{4e} | R ^{5em} | R^{6b} | 40 | N698 N699 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5fi} | R ^{6b} |
| | R^{1b} | R^{3s} | R^{4a} | R ^{5en} | R^{6b} | | | R^{1b} | R^{3g} | R^{4e} | R ⁵ fi | R^{6b} |
| N622 N623 | R^{1b} | R^{3t} | R^{4b} | R ^{5en} | R^{6b} | | N700 N701 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fi} | R^{6b} |
| N624 | R^{1b} | R^{3g} | R ^{4e} | R^{5en} | R^{6b} | | N701 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R ⁵ fi | R^{6b} |
| N625 | R^{1b} | R^{3h} | R ^{4e} | R ^{5en} | R^{6b} | | N703 | R^{1b} | R^{3t} | R^{4b} | R ⁵ fi | R^{6b} |
| N626 | R^{1b} | R^{3s} | R^{4a} | R ^{5eo} | R^{6b} | 50 | N704 | R^{1b} | R^{3g} | \mathbb{R}^{4e} | R ⁵ | R^{6b} |
| N627 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5eo} | R^{6b} | 50 | N705 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5f} | R^{6b} |
| N628 | R^{1b} | \mathbb{R}^{3g} | R ^{4e} | R ^{5eo} | R^{6b} | | N706 | R^{1b} | R^{3s} | R^{4a} | R^{5fk} | R^{6b} |
| N629 | R^{1b} | R^{3h} | R^{4e} | R ^{5eo} | R^{6b} | | N707 | R^{1b} | R^{3t} | R^{4b} | R ^{5fk} | R^{6b} |
| N630 | R^{1b} | R^{3s} | R^{4a} | R^{5ep} | R^{6b} | | N708 | R^{1b} | R^{3g} | R^{4e} | R^{5fk} | R^{6b} |
| N631 | R^{1b} | R^{3t} | R^{4b} | R^{5ep} | R^{6b} | | N709 | R^{1b} | R^{3h} | R ^{4e} | R^{5fk} | R^{6b} |
| N632 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5ep} | R^{6b} | | N710 | R^{1b} | R^{3s} | R^{4a} | R ^{5fl} | R^{6b} |
| N633 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5ep} | R^{6b} | 55 | N711 | R^{1b} | R^{3t} | R^{4b} | R ^{5fl} | R^{6b} |
| N634 | \mathbb{R}^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5eq} | R^{6b} | | N712 | R^{1b} | R^{3g} | R^{4e} | R^{5fl} | R^{6b} |
| N635 | R^{1b} | R^{3t} | R^{4b} | R^{5eq} | R^{6b} | | N713 | R^{1b} | R^{3h} | R^{4e} | R ^{5fl} | R^{6b} |
| N636 | \mathbb{R}^{1b} | R^{3g} | R^{4e} | \mathbb{R}^{5eq} | R^{6b} | | N714 | R^{1b} | R^{3s} | R^{4a} | R ^{5fm} | R^{6b} |
| N637 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5eq} | R^{6b} | | N715 | R^{1b} | R^{3t} | R^{4b} | R ^{5fm} | R^{6b} |
| N638 | R^{1b} | R^{3s} | R^{4a} | R^{5er} | R^{6b} | | N716 | R^{1b} | R^{3g} | R^{4e} | R ^{5fm} | R^{6b} |
| N639 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{ber} | R^{6b} | 60 | N717 | R^{1b} | R^{3h} | R^{4e} | R ^{5fm} | R^{6b} |
| N640 | R^{1b} | R^{3g} | R^{4e} | \mathbb{R}^{ber} | R^{6b} | | N718 | R^{1b} | R^{3s} | R^{4a} | R^{5fn} | R^{6b} |
| N641 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{ber} | R^{6b} | | N719 | R^{1b} | R^{3t} | R^{4b} | R^{5fn} | R^{6b} |
| N642 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5es} | R^{6b} | | N720 | R^{1b} | R^{3g} | R^{4e} | $R^{5\hat{m}}$ | R^{6b} |
| N643 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5es} | R^{6b} | | N721 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fn} | R^{6b} |
| N644 | R^{1b} | \mathbb{R}^{3g} | \mathbb{R}^{4e} | R^{5es} | R^{6b} | | N722 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fo} | R^{6b} |
| N645 | \mathbb{R}^{1b} | \mathbb{R}^{3h} | R^{4e} | \mathbb{R}^{5es} | R^{6b} | 65 | N723 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5fo} | R^{6b} |
| N646 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{bet} | R^{6b} | | N724 | R^{1b} | R^{3g} | R ^{4e} | R ^{5f0} | R^{6b} |
| | | • | | | | | | | - | | | |

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|------|----------|-------------------|-------------------|-----------------------|-----------------|---|
| | R_1 | R_3 | R_4 | R_5 | R_6 | |
| N725 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R ^{5fo} | R^{6b} | _ |
| N726 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5fp} | R^{6b} | |
| N727 | R^{1b} | \mathbb{R}^{3t} | \mathbb{R}^{4b} | R^{5fp} | R^{6b} | |
| N728 | R^{1b} | R^{3g} | R^{4e} | R^{5fp} | R^{6b} | |
| N729 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5fp} | R^{6b} | |
| N730 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | \mathbb{R}^{5fq} | R^{6b} | |
| N731 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R^{5fq} | R^{6b} | |
| N732 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5fq} | R^{6b} | |
| N733 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5fq} | R^{6b} | |
| N734 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5fr} | R^{6b} | |
| N735 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5fr} | R^{6b} | |
| N736 | R^{1b} | R^{3g} | R^{4e} | R^{5fr} | R^{6b} | |
| N737 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5fr} | R^{6b} | |
| N738 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R^{5fs} | R^{6b} | |
| N739 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | $R^{5f\hat{s}}$ | R^{6b} | |
| N740 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | $R^{5f\hat{s}}$ | R^{6b} | |
| N741 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | $R^{5f\hat{s}}$ | R^{6b} | |
| N742 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | $R^{5\hat{f}\hat{i}}$ | R^{6b} | |
| N743 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | $R^{5\hat{f}\hat{i}}$ | R^{6b} | |
| N744 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | $R^{5\hat{f}\hat{i}}$ | R^{6b} | |
| N745 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R ^{5ft} | R^{6b} | |
| N746 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fu} | R^{6b} | |
| N747 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5fii} | R^{6b} | |
| N748 | R^{1b} | \mathbb{R}^{3g} | R^{4e} | R^{5fi} | R^{6b} | |
| N749 | R^{1b} | \mathbb{R}^{3h} | \mathbb{R}^{4e} | R^{5fi} | R^{6b} | |
| N750 | R^{1b} | \mathbb{R}^{3s} | \mathbb{R}^{4a} | R ^{5fv} | R^{6b} | |
| N751 | R^{1b} | \mathbb{R}^{3t} | R^{4b} | R ^{5fv} | R^{6b} | |
| N752 | R^{1b} | R^{3g} | R^{4e} | R ^{5/v} | R^{6b} | |
| N753 | R^{1b} | R^{3h} | R^{4e} | R ^{5fv} | R ^{6b} | |
| N754 | R^{1b} | \mathbb{R}^{3s} | R^{4a} | R^{5fw} | R^{6b} | |
| N755 | R^{1b} | R^{3t} | R^{4b} | R^{5fw} | R^{6b} | |
| N756 | R^{1b} | R^{3g} | R^{4e} | R ^{5fw} | R^{6b} | |
| N757 | R^{1b} | \mathbb{R}^{3h} | R^{4e} | R^{5fw} | R^{6b} | |

Compounds of formula I as well as intermediates and reagents used can be prepared by the methods herein and as described in WO2008/101682 as well as further methods known to a skilled chemist in a variety of ways, or they are commercially available.

In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound 40 selected from Q.001 to Q.454 and the component B is Chlorothalonil. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component 45 B is Fludioxonil. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Cyprodinil. In a further preferred embodi- 50 ment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Fenpropidin. In a further preferred embodiment the component A is a specific compound 55 selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Mandipropamid. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound 60 selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Fluazinam. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound 65 selected from Q.001 to Q.454 and the component B is Procymedone. In a further preferred embodiment the component

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A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Carbendazim. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Abamectin. In a further preferred embodiment the component A is a specific compound selected from 10 Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Clothianidin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected 15 from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Emamectin benzoate. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound 20 selected from 0.001 to 0.454 and the component B is Imidacloprid. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component 25 B is Tefluthrin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Mefenoxam. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Orocymedone. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Thiamethoxam. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Lambda-cyhalothrin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Gamma-cyhalothrin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Profenofos. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Lufenuron. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Diffubenzuron. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Cypermethrin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Novaluron. In a further preferred embodiment the component A is

a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Bifenthrin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a 5 specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Methomyl. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a 10 specific compound selected from Q.001 to Q.454 and the component B is Chlopyrifos. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 15 and the component B is Methamidophos. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to 0.454 and the component B is Endosulfan. In a further 20 preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Betacyfluthrin. In a further preferred embodiment the component A is a 25 specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Triflumuron. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific 30 compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Teflubenzuron. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a 35 specific compound selected from Q.001 to Q.454 and the component B is Acephat. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the 40 component B is Glyphosate. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Glufosinate. In a further preferred 45 embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Mesotrione. In a further preferred embodiment the component A is a specific com- 50 pound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Bicyclopyrone. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific 55 compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Tembotrione. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific 60 compound selected from Q.001 to Q.454 and the component B is Sulcotrione. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the 65 component B is 2,4-D. In a further preferred embodiment the component A is a specific compound selected from Tables 1

to 164 or a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is MCPA. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Trinexapac-ethyl. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Prohexadione-Ca. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Paclobutrazol. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Acibenzolar-5-methyl. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Methyl-Jasmonate. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Cis-Jasmone. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Manganese. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Cyflufenamid. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Tebufloquin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Copper. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Coumoxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Dicloaminostrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Flufenoxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Pyrametostrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Pyraoxystrobin. In a further preferred embodiment the component A is a specific com-

pound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Trifloxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific 5 compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Azoxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Pyraclostrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the 15 component B is Picoxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Jiaxiangjunzhi. In a further preferred 20 embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Enoxastrobin. In a further preferred embodiment the component A is a specific com- 25 pound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Triclopyricarb. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific 30 compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Fluoxastrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific 35 compound selected from Q.001 to Q.454 and the component B is Dimoxystrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the 40 component B is Fenaminostrobin. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is the compound of formula II. 45 In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Cyproconazole. In a further preferred embodiment the component A 50 is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Difenoconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 55 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Metconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to 60 P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Propiconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 65 to Q.454 and the component B is Epoxiconazole. In a further preferred embodiment the component A is a specific com-

pound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Tebuconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Flutriafol. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Ipconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is 1-(2chlorophenyl)-2-(1-chlorocycloprop-1-yl)-3-(1,2,4-triazol-1-yl)propan-2-ol [CAS number 120983-64-4]. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is prothioconazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is (S)-[3-(4-chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol [CAS number 1229606-46-5]. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164 or a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)-[CAS isoxazol-4-yl]-pyridin-3-yl-methanol number 1229605-96-2]. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Pyrisoxazole. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is 3-(difluoromethyl)-N-methoxy-1methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-1H-Pyrazole-4-carboxamide [CAS number 1228284-64-7]. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4carboxamide [CAS number 1072957-71-1]. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Isopyrazam. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Sedaxane. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Boscalid. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Flux-

apyroxad. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Penthiopyrad. In a further preferred embodiment the 5 component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Penflufen. In a further preferred embodiment the component A is a specific compound selected from Tables 10 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from Q.001 to Q.454 and the component B is Bixafen. In a further preferred embodiment the component A is a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a 15 specific compound selected from Q.001 to Q.454 and the component B is Fluopyram. In a further embodiment the invention relates to a specific compound selected from Tables 1 to 164, a specific compound selected from P.1 to P.372 or a specific compound selected from O.001 to O.454.

The compounds of formula I, and, where appropriate, the tautomers thereof, can be present in the form of one of the isomers which are possible or as a mixture of these, for example in the form of pure isomers, such as antipodes and/or diastereomers, or as isomer mixtures, such as structural iso- 25 mer, stereo isomer, diastereoisomer and enantiomer mixtures, for example racemates, diastereomer mixtures or racemate mixtures, depending on the number, absolute and relative configuration of asymmetric carbon atoms which occur in the molecule and/or depending on the configuration 30 of non-aromatic double bonds which occur in the molecule; the invention relates to the pure isomers and also to all isomer mixtures which are possible and is to be understood in each case in this sense hereinabove and hereinbelow, even when stereochemical details are not mentioned specifically in each 35

Likewise, where isomers are possible for compounds that may be selected as component B, the invention relates to the pure isomers and also to all isomer mixtures which are pos-

The compositions according to the invention have, for practical purposes, a very advantageous spectrum of activities for protecting useful plants against diseases that are caused by phytopathogenic microorganisms, such as fungi, bacteria or viruses.

The invention relates to a method of controlling or preventing infestation of useful plants by phytopathogenic microorganisms, wherein a composition of the invention is applied to the plants, to parts thereof or the locus thereof. The compositions according to the invention are distinguished by excel- 50 lent activity at low rates of application, by being well tolerated by plants and by being environmentally safe. They have very useful curative, preventive and systemic properties and are used for protecting numerous useful plants. The compositions of the invention can be used to inhibit or destroy the 55 diseases that occur on plants or parts of plants (fruit, blossoms, leaves, stems, tubers, roots) of different crops of useful plants, while at the same time protecting also those parts of the plants that grow later e.g. from phytopathogenic microorganisms.

It is also possible to use compositions of the invention as dressing agents for the treatment of plant propagation material, in particular of seeds (fruit, tubers, grains) and plant cuttings (e.g. rice), for the protection against fungal infections

Furthermore the compositions of the invention may be used for controlling fungi in related areas, for example in the 96

protection of technical materials, including wood and wood related technical products, in food storage or in hygiene man-

The compositions of the invention are, for example, effective against the phytopathogenic fungi of the following classes: Fungi imperfecti (e.g. Botrytis, Pyricularia, Helminthosporium, Fusarium, Septoria, Cercospora and Alternaria) and Basidiomycetes (e.g. Rhizoctonia, Hemileia, Puccinia). Additionally, they are also effective against the Ascomycetes classes (e.g. Venturia and Erysiphe, Podosphaera, Monilinia, Uncinula) and of the Oomycetes classes (e.g. Phytophthora, Pythium, Plasmopara). Outstanding activity has been observed against powdery mildew (Erysiphe spp.). Furthermore, the compositions of the invention are effective against phytopathogenic bacteria and viruses (e.g. against Xanthomonas spp, Pseudomonas spp, Erwinia amylovora as well as against the tobacco mosaic virus). Good activity has been observed against rust disease, like leaf rust (*Puccinia* spp.) and soybean rust (*Phakopsora* 20 pachvrhizi).

Within the scope of the invention, useful plants to be protected typically comprise the following species of plants: cereal (wheat, barley, rye, oat, rice, maize, sorghum and related species); beet (sugar beet and fodder beet); pomes, drupes and soft fruit (apples, pears, plums, peaches, almonds, cherries, strawberries, raspberries and blackberries); leguminous plants (beans, lentils, peas, soybeans); oil plants (rape, mustard, poppy, olives, sunflowers, coconut, castor oil plants, cocoa beans, groundnuts); cucumber plants (pumpkins, cucumbers, melons); fiber plants (cotton, flax, hemp, jute); citrus fruit (oranges, lemons, grapefruit, mandarins); vegetables (spinach, lettuce, asparagus, cabbages, carrots, onions, tomatoes, potatoes, paprika); lauraceae (avocado, cinnamomum, camphor) or plants such as tobacco, nuts, coffee, eggplants, sugar cane, tea, pepper, vines, hops, bananas and natural rubber plants, as well as ornamentals and turf and grass species.

The toxin contained in the transgenic plants imparts to the plants tolerance to harmful insects. Such insects can occur in 40 any taxonomic group of insects, but are especially commonly found in the beetles (Coleoptera), two-winged insects (Diptera) and butterflies (Lepidoptera).

Transgenic plants containing one or more genes that code for an insecticidal resistance and express one or more toxins 45 are known and some of them are commercially available. Examples of such plants are: YieldGard® (maize variety that expresses a Cry1Ab toxin); YieldGard Rootworm® (maize variety that expresses a Cry3Bb1 toxin); YieldGard Plus® (maize variety that expresses a Cry1Ab and a Cry3Bb1 toxin); Starlink® (maize variety that expresses a Cry9 C toxin); Herculex I® (maize variety that expresses a Cry1Fa2 toxin and the enzyme phosphinothricine N-acetyltransferase (PAT) to achieve tolerance to the herbicide glufosinate ammonium); NuCOTN 33B® (cotton variety that expresses a Cry1Ac toxin); Bollgard I® (cotton variety that expresses a Cry1Ac toxin); Bollgard II® (cotton variety that expresses a Cry1Ac and a Cry2Ab toxin); VipCot® (cotton variety that expresses a Vip3A and a Cry1Ab toxin); NewLeaf® (potato variety that expresses a Cry3A toxin); NatureGard®, Agri-60 sure® GT Advantage (GA21 glyphosate-tolerant trait), Agrisure® CB Advantage (Bt11 corn borer (CB) trait) and Pro-

Further examples of such transgenic crops are:

1. Bt11 Maize from Syngenta Seeds SAS, Chemin de as well as against phytopathogenic fungi occurring in the soil. 65 l'Hobit 27, F-31 790 St. Sauveur, France, registration number C/FR/96/05/10. Genetically modified Zea mays which have been rendered resistant to attack by the European corn borer

(Ostrinia nubilalis and Sesamia nonagrioides) by transgenic expression of a truncated Cry1Ab toxin. Bt11 maize also transgenically expresses the enzyme PAT to achieve tolerance to the herbicide glufosinate ammonium.

- 2. Bt176 Maize from Syngenta Seeds SAS, Chemin de 1'Hobit 27, F-31 790 St. Sauveur, France, registration number C/FR/96/05/10. Genetically modified *Zea mays* which have been rendered resistant to attack by the European corn borer (*Ostrinia nubilalis* and *Sesamia nonagrioides*) by transgenic expression of a Cry1Ab toxin. Bt176 maize also transgenically expresses the enzyme PAT to achieve tolerance to the herbicide glufosinate ammonium.
- 3. MIR604Maize from Syngenta Seeds SAS, Chemin de l'Hobit 27, F-31 790 St. Sauveur, France, registration number C/FR/96/05/10. Maize which has been rendered insect-resistant by transgenic expression of a modified Cry3A toxin. This toxin is Cry3A055 modified by insertion of a cathepsin-G-protease recognition sequence. The preparation of such transgenic maize plants is described in WO 03/018810.
- 4. MON 863 Maize from Monsanto Europe S.A. 270-272 20 Avenue de Tervuren, B-1150 Brussels, Belgium, registration number C/DE/02/9. MON 863 expresses a Cry3Bb1 toxin and has resistance to certain Coleoptera insects.
- 5. IPC 531 Cotton from Monsanto Europe S.A. 270-272 Avenue de Tervuren, B-1150 Brussels, Belgium, registration 25 number C/ES/96/02.
- 6.1507 Maize from Pioneer Overseas Corporation, Avenue Tedesco, 7 B-1160 Brussels, Belgium, registration number C/N L/00/10. Genetically modified maize for the expression of the protein Cry1 F for achieving resistance to certain Lepidoptera insects and of the PAT protein for achieving tolerance to the herbicide glufosinate ammonium.
- 7. NK603×MON 810 Maize from Monsanto Europe S.A. 270-272 Avenue de Tervuren, B-1150 Brussels, Belgium, registration number C/GB/02/M3/03. Consists of conventionally bred hybrid maize varieties by crossing the genetically modified varieties NK603 and MON 810. NK603× MON 810 Maize transgenically expresses the protein CP4 EPSPS, obtained from *Agrobacterium* sp. strain CP4, which imparts tolerance to the herbicide Roundup® (contains glyphosate), and also a Cry1Ab toxin obtained from *Bacillus thuringiensis* subsp. *kurstaki* which brings about tolerance to certain Lepidoptera, include the European corn borer.

The term "locus" of a useful plant as used herein is intended to embrace the place on which the useful plants are 45 growing, where the plant propagation materials of the useful plants are sown or where the plant propagation materials of the useful plants will be placed into the soil. An example for such a locus is a field, on which crop plants are growing.

The term "plant propagation material" is understood to 50 denote generative parts of the plant, such as seeds, which can be used for the multiplication of the latter, and vegetative material, such as cuttings or tubers, for example potatoes. There may be mentioned for example seeds (in the strict sense), roots, fruits, tubers, bulbs, rhizomes and parts of 55 plants. Germinated plants and young plants which are to be transplanted after germination or after emergence from the soil, may also be mentioned. These young plants may be protected before transplantation by a total or partial treatment by immersion. Preferably "plant propagation material" is 60 understood to denote seeds.

Components A and B can be used in unmodified form or, preferably, together with carriers and adjuvants conventionally employed in the art of formulation.

To this components A and B and inert carriers are conveniently formulated in known manner to emulsifiable concentrates, coatable pastes, directly sprayable or dilutable solu-

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tions, dilute emulsions, wettable powders, soluble powders, dusts, granulates, and also encapsulations e.g. in polymeric substances. As with the type of the compositions, the methods of application, such as spraying, atomizing, dusting, scattering, coating or pouring, are chosen in accordance with the intended objectives and the prevailing circumstances. The compositions may also contain further adjuvants such as stabilizers, antifoams, viscosity regulators, binders or tackifiers as well as fertilizers, micronutrient donors or other formulations for obtaining special effects.

Suitable carriers and adjuvants can be solid or liquid and are substances useful in formulation technology, e.g. natural or regenerated mineral substances, solvents, dispersants, wetting agents, tackifiers, thickeners, binders or fertilizers. Such carriers are for example described in WO 97/33890.

The compositions of the invention can be applied to the locus of the plant or plant to be treated, simultaneously or in succession with further compounds. These further compounds can be e.g. fertilizers or micronutrient donors or other preparations which influence the growth of plants. They can also be herbicides as well as insecticides, fungicides, bactericides, nematicides, molluscicides or mixtures of several of these preparations, if desired together with further carriers, surfactants or application promoting adjuvants customarily employed in the art of formulation. Suitable further compounds are described in WO2008/101682.

A preferred method of the invention is foliar application. The frequency of application and the rate of application will depend on the risk of infestation by the corresponding pathogen. However, the compositions of the invention can also penetrate the plant through the roots via the soil (systemic action) by drenching the locus of the plant with a liquid formulation, or by applying the compounds in solid form to the soil, e.g. in granular form (soil application). In crops of water rice such granulates can be applied to the flooded rice field. The compositions of the invention may also be applied to seeds (coating) by impregnating the seeds or tubers either with a liquid formulation of the fungicide or coating them with a solid formulation.

A formulation, i.e. a composition of the invention and, if desired, comprising a solid or liquid adjuvant, is prepared in a known manner, typically by intimately mixing and/or grinding the compound with extenders, for example solvents, solid carriers and, optionally, surface-active compounds (surfactants).

The agrochemical formulations will usually contain from 0.1 to 99% by weight, preferably from 0.1 to 95% by weight, of the active ingredients, 99.9 to 1% by weight, preferably 99.8 to 5% by weight, of a solid or liquid adjuvant, and from 0 to 25% by weight, preferably from 0.1 to 25% by weight, of a surfactant

Whereas it is preferred to formulate commercial products as concentrates, the end user will normally use dilute formulations.

Advantageous rates of application are normally from 1 g to 2 kg of active ingredient (a.i.) per hectare (ha), preferably from 10 g to 1 kg a.i./ha, most preferably from 20 g to 600 g a.i./ha. When used as seed drenching agent, convenient rates of application are from 10 mg to 1 g of active substance per kg of seeds. The rate of application for the desired action can be determined by experiments. It depends for example on the type of action, the developmental stage of the useful plant, and on the application (location, timing, application method) and can, owing to these parameters, vary within wide limits.

Said methods are particularly effective against the phytopathogenic organisms of the kingdom Fungi, phylum Basidiomycot, class Uredinomycetes, subclass Urediniomycetidae and the order Uredinales (commonly referred to as rusts). Species of rusts having a particularly large impact on agriculture include those of the family Phakopsoraceae, particularly those of the genus *Phakopsora*, for example *Phakopsora pachyrhizi*, which is also referred to as Asian soybean rust, and those of the family Pucciniaceae, particularly those of the genus *Puccinia* such as *Puccinia graminis*, also known as stem rust or black rust, which is a problem disease in cereal crops and *Puccinia recondita*, also known as brown rust.

The compositions of the invention are effective against various microbial species able to cause a microbial infection in an animal. Examples of such microbial species are those causing Aspergillosis such as *Aspergillus fumigatus*, *A. flavus*, *A. terrus*, *A. nidulans* and *A. niger*, those causing Blastomycosis such as *Blastomyces dermatitidis*; those causing

Candidiasis such as Candida albicans, C. glabrata, C. tropicalis, C. parapsilosis, C. krusei and C. lusitaniae; those causing Coccidioidomycosis such as Coccidioides immitis; those causing Cryptococcosis such as Cryptococcus neoformans; those causing Histoplasmosis such as Histoplasma capsulatum and those causing Zygomycosis such as Absidia corymbifera, Rhizomucor pusillus and Rhizopus arrhizus. Further examples are Fusarium Spp such as Fusarium oxysporum and Fusarium solani and Scedosporium Spp such as Scedosporium apiospermum and Scedosporium prolificans. Still further examples are Microsporum Spp, Trichophyton Spp, Epidermophyton Spp, Mucor Spp, Sporothorix Spp, Phialophora Spp, Cladosporium Spp, Petriellidium spp, Paracoccidioides Spp and Histoplasma Spp.

The following table provides a selection of compounds of the invention

| Cpd No. | Structure |
|------------|---|
| P.01 | $ ho_{ m CH_3}$ |
| | CI N CH ₃ |
| P.02 | $\begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \end{array}$ |
| P.03 | CI CH_3 CH_3 CH_3 |
| P.04 | H ₃ C H |
| | CI N CH ₃ |
| P.05 | $\begin{array}{c} H_{3}C \\ \\ CI \\ \\ CI \\ \end{array}$ |
| | $^{ m CH}_3$ |

| Cpd No. | Structure |
|------------|--|
| P.06 | $\begin{array}{c} CH_3 \\ F \\ F \end{array}$ |
| P.07 | CH ₃ |
| | $F = F$ CH_3 CH_3 |
| P.08 | $H_{3}C$ N N CH_{3} |
| | F O N |
| P.09 | CH ₃ N N N |
| | F F F |
| P.10 | CI H_3C N |
| | F CH ₃ |
| P.11 | CH ₃ |
| | F F F |
| P.12 | H ₃ C CH ₃ H ₃ C CH |
| | CI N CH ₃ |
| | ĊH ₃ |

| Cpd No. | Structure |
|------------|--|
| P.13 | $F = \prod_{i=1}^{Cl} \prod_{i=1}^{H_3C} \prod_{i=1}^{N} \prod_{i=1}^$ |
| P.14 | H_3C H_3C CH_3 CH_3 CH_3 CH_3 |
| P.15 | H_{3} C N CH_{3} |
| P.16 | $F = \begin{cases} CI & \text{CH}_3 \\ N & \text{N} \\ N & \text{N} \end{cases}$ |
| P.17 | H_3C CH_3 H_3C CH_3 CH_3 |
| P.18 | $\begin{array}{c} CH_3 \\ CH_3 \\ F \\ F \end{array}$ |

| Cpd No. | Structure |
|------------|---|
| P.19 | $\begin{array}{c} CI \\ F \\ F \end{array}$ |
| P.20 | $F = \begin{cases} CH_3 \\ N \\ CH_3 \end{cases}$ |
| P.21 | CH ₃ CH ₃ N CH ₃ CH ₃ |
| P.22 | Cl CH ₃ N CH ₃ |
| P.23 | CH ₃ N CH ₃ |
| P.24 | CH ₃ CH ₃ CH ₃ CH ₃ |
| P.25 | $\stackrel{\mathrm{CH_3}}{\stackrel{ }{\stackrel{ }{\stackrel{ }{\stackrel{ }{\stackrel{ }{\stackrel{ }{\stackrel{ }{\stackrel$ |

| | -continued |
|------------|---|
| Cpd No. | Structure |
| P.26 | H_3C O O N CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.27 | H_3C CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.28 | H_3C CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.29 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.30 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|---|
| P.31 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.32 | $\begin{array}{c} & & & \\ & &$ |
| P.33 | $F \longrightarrow F \longrightarrow N \longrightarrow N \longrightarrow CH_3$ $F \longrightarrow F \longrightarrow Br \longrightarrow N \longrightarrow CH_3$ |
| P.34 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.35 | H_3C H_3C O |
| P.36 | $F = \begin{array}{c} CH_3 \\ N \\ CH_3 \end{array}$ |

| Cpd No. | Structure |
|------------|--|
| P.37 | $\stackrel{N}{\longrightarrow} \stackrel{N}{\longrightarrow} \stackrel{CH_3}{\longrightarrow} CH$ |
| P.38 | H_3C H CH_3 CH_3 CH_3 CH_3 |
| P.39 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.40 | $F \longrightarrow F \longrightarrow N \longrightarrow CH_3$ $F \longrightarrow F \longrightarrow N \longrightarrow CH_3$ $CH_3 \longrightarrow CH_3$ |
| P.41 | F O N CH_3 CH_3 CH_3 |
| P.42 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.43 | CH_3 CH_3 CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|--|
| P.44 | CI N CH_3 CH_3 CH_3 CH_3 |
| P.45 | H_3C H_3C O N CH_3 CH_3 CH_3 |
| P.46 | H_3C H_3C CH_3 CH_3 CH_3 CH_3 |
| P.47 | CH_3 CH_3 CH_3 CH_3 |
| P.48 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.49 | $F = \begin{cases} CH_3 \\ N \\ CH_3 \end{cases}$ CH_3 CH_3 CH_3 |
| P.50 | $\begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \end{array}$ |

| Cpd No. | Structure |
|------------|--|
| P.51 | $\begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \end{array}$ |
| P.52 | $\begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \end{array}$ |
| P.53 | $\begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \\ CH_3 \end{array}$ |
| P.54 | H_3C O |
| P.55 | H_3C H_3C CH_3 CH_3 CH_3 CH_3 |
| P.56 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.57 | H_3C H_3C H_3C N CH_3 N CH_3 N CH_3 |

| Cpd No. | Structure |
|------------|---|
| P.58 | H_3C H_3C N CH_3 CH_3 |
| P.59 | H_3C H_3C O N O |
| P.60 | N N N N N N N N N N |
| P.61 | H_3C H_3C H_3C N N CH_3 CH_3 |
| P.62 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.63 | CI O N CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|---|
| P.64 | H_3C H_3C N N CH_3 CH_3 CH_3 |
| P.65 | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ |
| P.66 | CI F F F CH_3 CH_3 |
| P.67 | H_3C H CH_3 O N CH_3 CH_3 |
| P.68 | CI H_3C O N CH_3 CH_3 CH_3 |
| P.69 | H_3C H CH_3 N N CH_3 CH_3 |

| Cpd No. | Structure |
|------------|---|
| P.70 | H_3C H CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.71 | H_3C H_3C N CH_3 CH_3 |
| P.72 | H_3C H_3C N N CH_3 CH_3 |
| P.73 | H_3C H_3C O N CI N CH_3 CH_3 CH_3 |
| P.74 | H_3C H_3C F |
| P.75 | H_3C H_3C H_3C F F F |

| Cpd No. | Structure |
|------------|---|
| P.76 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.77 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.78 | Br CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.79 | Br CI CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.80 | $I \xrightarrow{N} CH_3$ CH_3 $N \xrightarrow{CH_3}$ $N \xrightarrow{CH_3}$ CH_3 CH_3 |
| P.81 | H_3C H_3C N N CH_3 CH_3 |

| Cpd No. | Structure |
|------------|--|
| P.82 | H ₃ C — O CH ₃ O — N — CH ₃ CH ₃ CH ₃ |
| P.83 | $\begin{array}{c} & & \\$ |
| P.84 | $\begin{array}{c} & & \\$ |
| P.85 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.86 | Br CH_3 CH_3 CH_3 CH_3 CH_3 |

| | continued |
|------------|--|
| Cpd No. | Structure |
| P.87 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.88 | $\bigcap_{N} \bigcap_{\text{CH}_3} \bigcap_{\text{CH}_3$ |
| P.89 | $\bigcap_{O} \bigcap_{\operatorname{Br}} \bigcap_{\operatorname{CH}_3} $ |
| P.90 | $\begin{array}{c} CH_3 \\ N \\ N \\ N \\ CH_3 \end{array}$ |
| P.91 | $\bigcap_{O} \bigcap_{Br} \bigcap_{N} \bigcap_{CH_3} \bigcap_{CH_3}$ |
| P.92 | $\begin{array}{c} CH_3 \\ N \\ N \\ N \\ CH_3 \end{array}$ |

| | -continued |
|------------|--|
| Cpd No. | Structure |
| P.93 | $\begin{array}{c} CH_3 \\ N \\ N \\ N \end{array}$ |
| P.94 | $\begin{array}{c} -\text{O} \\ \\ \text{O} \\ \\ \text{O} \\ \\ \text{N} \\ \\ \text{CH}_{3} \\ \\ \text{CH}_{4} \\ \\ \text{CH}_{5} \\ \\ $ |
| P.95 | $\begin{array}{c} & & \\$ |
| P.96 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.97 | CH_3 CH_3 CH_3 CH_3 CH_3 |

| | -continued |
|------------|--|
| Cpd No. | Structure |
| P.98 | $\begin{array}{c} -\text{O} \\ \\ \text{O} \\ \\ \text{Br} \end{array} \begin{array}{c} \text{CH}_3 \\ \\ \text{N} \\ \\ \text{CH}_3 \end{array}$ |
| P.99 | O N CH_3 N CH_3 CH_3 CH_3 |
| P.100 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.101 | $\begin{array}{c} & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$ |
| P.101a C | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|--|
| P.102 | $F \longrightarrow F \qquad CH_3 \qquad CH_4 \qquad CH_4 \qquad CH_5 \qquad$ |
| P.103 | Br CH ₃ CH ₃ CH ₃ CH ₃ CH ₃ |
| P.104 | $\begin{array}{c c} Cl & CH_3 & CH_3 \\ \hline \\ Cl & N & N \\ \hline \\ \\ CH_3 & CH_3 \\ \hline \\ \\ CH_3 & CH_3 \\ \hline \\ \end{array}$ |
| P.105 | CI O N CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.106 | CI O N CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.107 | $\bigcap_{N} \bigcap_{\text{CH}_3} \bigcap_{\text{CH}_3$ |
| P.108 | $\begin{array}{c} CH_3 \\ N \\ N \\ CH_3 \\ \end{array}$ |

| Cpd No. | Structure |
|------------|---|
| P.109 | $\begin{array}{c} Cl \\ Cl \\ N \\ \end{array}$ |
| P.110 | $\begin{array}{c c} CH_3 & CH_3 \\ \hline \\ N & N \\ \hline \\ CH_3 \\ \hline \\ CH_3 \\ \end{array}$ |
| P.111 | $\bigcap_{O} \bigvee_{N} \bigvee_{O} \bigvee_{N} \bigvee_{CH_3} \bigvee_{CH_3}$ |
| P.112 | $\begin{array}{c} & & & \\ & &$ |
| P.113 | CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.114 | ON CH ₃ N N CH ₃ CH ₃ CH ₃ CH ₃ |
| P.115 | $\bigcap_{\mathrm{CH}_3}^{\mathrm{CH}_3} \bigcap_{\mathrm{CH}_3}^{\mathrm{CH}_3}$ |

| Cpd No. | Structure |
|------------|---|
| P.116 | CH ₃ N CH ₃ CH ₃ CH ₃ CH ₃ |
| P.117 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.118 | CH_3 N CH_3 CH_3 CH_3 CH_3 |
| P.119 | F O N CH_3 CH_3 CH_3 |
| P.120 | $F \qquad \qquad$ |
| P.121 | $F \xrightarrow{\qquad \qquad \qquad } O \xrightarrow{\qquad \qquad \qquad } N \xrightarrow{\qquad \qquad } CH_3$ $E \xrightarrow{\qquad \qquad \qquad } N \xrightarrow{\qquad \qquad } N \xrightarrow{\qquad \qquad } CH_3$ $E \xrightarrow{\qquad \qquad } N \xrightarrow{\qquad \qquad } CH_3$ |
| P.122 | CH_3 CH_3 CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|--|
| P.123 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.124 | $\begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.125 | $\begin{array}{c} & & \\$ |
| P.126 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ |
| P.127 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ |
| P.128 | $F \longrightarrow CH_3$ $V \longrightarrow CH_3$ CH_3 CH_3 |
| P.129 | F CH_3 CH_3 CH_3 CH_3 |

| Cpd No. | Structure |
|------------|--|
| P.130 | $\bigcap_{\mathrm{Br}}^{\mathrm{CH_{3}}} \bigvee_{\mathrm{CH_{3}}}^{\mathrm{CH_{3}}}$ |
| P.131 | $\begin{array}{c} & & \\$ |
| P.132 | $F \qquad \qquad$ |
| P.133 | $\begin{array}{c} & & & \\ & &$ |
| P.134 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.135 | CH_3 CH_3 CH_3 CH_3 CH_3 |
| P.136 | N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.137 | $\bigcup_{\mathrm{Br}} \mathbb{N} = \mathbb{N}$ |
| P.138 | $F \longrightarrow \bigcup_{\mathrm{Br}} N \longrightarrow \bigcup_{\mathrm{N}} N$ |
| P.139 | r r r r r r r r r r |
| P.140 | N N N N N N N N N N |
| P.141 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ |
| P.142 | F O |
| P.143 | r r r r r r r r r r |

| Cpd No. | Structure |
|------------|---|
| P.145 | $-\!$ |
| P.146 | F O N |
| P.147 | |
| P.148 | B_{r} N |
| P.149 | |
| P.150 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ |
| P.151 | N N N N N N N N N N |
| P.152 | CI O N |

| Cpd No. | Structure |
|------------|--|
| P.153 | O O O O O O O O O O |
| P.154 | $rac{1}{2}$ |
| P.155 | $\bigcap_{N} \bigcap_{N} \bigcap_{N$ |
| P.156 | N N N N N N N N N N N N N N N N N N N |
| P.157 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.158 | N N N N N N N N N N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.159 | Br N N N N N N N N N N N N N N N N N N N |
| P.160 | |
| P.161 | |
| P.162 | |
| P.163 | |

| Cpd No. | Structure |
|------------|--|
| P.164 | |
| P.165 | O S O |
| P.166 | $\begin{array}{c c} & & \\ $ |
| P.167 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.168 | N S N N N N N N N N N N N N N N N N N N |
| P.169 | |

| Cpd No. | Structure |
|------------|---|
| P.170 | Br N N N |
| P.171 | F N S N |
| P.172 | F CI N N N N N N N N N N N N N N N N N N |
| P.173 | F N S N |
| P.174 | N N N N N N N N N N |
| P.175 | |

| Cpd No. | Structure |
|------------|---|
| P.176 | N N N N N N N N N N |
| P.177 | N O N |
| P.178 | |
| P.179 | $ \begin{array}{c c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $ |
| P.180 | O N N N N N N N N N N N N N N N N N N N |
| P.181 | HO N N N |
| P.182 | N N N N N N N N N N |

| | continued |
|------------|---|
| Cpd No. | Structure |
| P.183 | Si O N N N N N |
| P.184 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.185 | O Br |
| P.186 | N N N N N N N N N N |
| P.187 | N Br O |
| P.188 | F O N |

| Cpd No. | Structure |
|------------|---------------------------------------|
| P.189 | F O Br |
| P.190 | |
| P.191 | N N N N N N N N N N |
| P.192 | |
| P.193 | |
| P.194 | |
| P.195 | N N N N N N N N N N |
| P.196 | N N N N N N N N N N |

| Cpd No. | Structure |
|------------|---------------------------------------|
| P.197 | N N N N N N N N N N |
| P.198 | N N N N N N N N N N |
| P.199 | |
| P.200 | |
| P.201 | |

| | -continued |
|------------|------------|
| Cpd No. | Structure |
| P.202 | |
| P.203 | |
| P.204 | |
| P.205 | |

| | -continued |
|------------|------------|
| Cpd No. | Structure |
| P.206 | |
| P.207 | |
| P.208 | |
| P.209 | |

| Cpd No. | Structure |
|------------|---|
| P.210 | |
| P.211 | |
| P.212 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.213 | N N N N N |
| P.214 | $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ |

| | Continued |
|------------|---|
| Cpd No. | Structure |
| P.215 | |
| P.216 | $\begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.217 | |
| P.218 | |
| P.219 | N N N N N N N N N N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.220 | O N N N N N N N N N N N N N N N N N N N |
| P.221 | |
| P.222 | |
| P.223 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{S}} \bigcup_{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}} \bigcup_$ |
| P.224 | S N |
| P.225 | O O N |

| Cpd | |
|-------|--|
| No. | Structure |
| P.226 | O N |
| P.227 | $\bigcup_{\mathrm{Br}}^{\mathrm{O}} \bigcup_{\mathrm{N}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm$ |
| P.228 | $\bigcup_{\mathrm{Br}} \mathbb{N} = \mathbb{N}$ |
| P.229 | $\bigcup_{\mathrm{Br}}^{\mathrm{O}} \bigvee_{\mathrm{N}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ |
| P.230 | N N N N N N N N N N |
| P.231 | $\bigcup_{\mathrm{Dr}} \sum_{\mathrm{N}} $ |

| Cpd No. | Structure |
|------------|--|
| P.232 | N N N N N N N N N N |
| P.233 | N N N N N N N N N N |
| P.234 | N N N N N N N N N N |
| P.235 | O N |
| P.236 | $O \longrightarrow_{\operatorname{Br}} N \longrightarrow_{\operatorname{N}} N$ |
| P.237 | F O N N N |

| Cpd No. | Structure |
|------------|---|
| P.238 | F N N N |
| P.239 | F O N |
| P.240 | F O N |
| P.241 | F O N |
| P.242 | F O N |
| P.243 | F O N |

| Cpd No. | Structure |
|------------|--|
| P.244 | F O N N N N N N N N N N N N N N N N N N |
| P.245 | F O N N N N N N N N N N N N N N N N N N |
| P.246 | F O N N N N N N N N N N N N N N N N N N |
| P.247 | N N N N N N N N N N |
| P.248 | N N N N N N N N N N |
| P.249 | $\bigcup_{\mathrm{Br}} N \longrightarrow N$ |
| P.250 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ |

| Cpd No. | Structure |
|------------|--|
| P.251 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ |
| P.252 | $\bigcap_{\mathrm{Br}}^{\mathrm{N}} \bigcap_{\mathrm{N}}^{\mathrm{N}}$ |
| P.253 | Cl N |
| P.254 | N N N N N N N N N N |
| P.255 | N N N N N N N N N N |
| P.256 | Br N |
| P.257 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |

| Cpd No. | Structure |
|------------|---|
| P.258 | F O O N |
| P.259 | F O |
| P.260 | F O N N N N N N N N N N N N N N N N N N |
| P.261 | F O N |
| P.262 | F O N |
| P.263 | F O F N |

| Cpd No. | Structure |
|------------|---|
| P.264 | F O N N N N N |
| P.265 | F O N |
| P.266 | F O N |
| P.267 | F O N N N |
| P.268 | F N N N |
| P.269 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |

| Cpd No. | Structure |
|------------|---|
| P.270 | N N N N N N N N N N N N N N N N N N N |
| P.271 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ |
| P.272 | N N N N N N N N N N |
| P.273 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.274 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.275 | |
| P.276 | Br N N N |

| | Continued |
|------------|--|
| Cpd No. | Structure |
| P.277 | N N N N N N N N N N |
| P.278 | |
| P.279 | |
| P.280 | |
| P.281 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array}$ |

| Cpd No. | Structure |
|------------|--|
| P.282 | |
| P.283 | HO O Br |
| P.284 | $\bigcap_{\mathrm{Cl}} \bigvee_{\mathrm{Br}} \bigvee_{\mathrm{N}} \bigvee_{\mathrm{N}}$ |
| P.285 | N N N N N N N N N N |
| P.286 | $\bigcup_{N = 1}^{H} \bigcup_{N = 1}^{N} $ |
| P.287 | |

| Cpd No. | Structure |
|------------|---|
| P.288 | $CI \longrightarrow N \longrightarrow $ |
| P.289 | N N N N N N N N N N N N N N N N N N N |
| P.290 | |
| P.291 | Br N N N |
| P.292 | = |

| Cpd No. | Structure |
|------------|---|
| P.293 | = |
| P.294 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.295 | |
| P.296 | N N N N N N N N N N |
| P.297 | N N N N N N N N N N N N N N N N N N N |
| P.298 | N N N N N N N N N N |
| P.299 | N N N N N N N N N N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.300 | |
| P.301 | -OMN-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N |
| P.302 | |
| P.303 | |
| P.304 | N N N N N N N N N N N N N N N N N N N |
| P.305 | Cl N |

| Cpd No. | Structure |
|------------|--|
| P.306 | CI N N N N N N N N N N N N N N N N N N N |
| P.307 | N N N N N N N N N N |
| P.308 | N N N N N N N N N N |
| P.309 | $\begin{array}{c} N \\ \\ N \\ N \\ N \\ N \\ N \\ N \\ N \\ N \\ N \\ \\ N \\ \\ N \\ \\ N \\ N \\ N \\ N \\ N \\ N \\ N \\ N \\ N$ |
| P.310 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ |
| P.311 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.312 | N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.313 | |
| P.314 | N N N N N N N N N N |
| P.315 | $= \underbrace{\hspace{1cm}}_{0} \underbrace{\hspace{1cm}}_{N} \underbrace{\hspace{1cm}}_{N} \underbrace{\hspace{1cm}}_{N}$ |
| P.316 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.317 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.318 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.319 | N N N N N N N N N N |

| | Continued |
|------------|--|
| Cpd No. | Structure |
| P.320 | F F F F F F F F F F |
| P.321 | S O N |
| P.322 | |
| P.323 | $\bigcap_{\mathrm{Br}}^{\mathrm{N}} \bigcap_{\mathrm{N}}^{\mathrm{N}}$ |
| P.324 | r r r r r r r r r r |
| P.325 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ |

| Cpd No. | Structure |
|------------|-----------|
| P.326 | |
| P.327 | |
| P.328 | |
| P.329 | |
| P.330 | |

| Cpd No. | Structure |
|------------|--|
| P.331 | |
| P.332 | F O N N N N N N N N N N N N N N N N N N |
| P.333 | |
| P.334 | F O N N N N N N N N N N N N N N N N N N |
| P.335 | CI N N N N N N N N N N N N N N N N N N N |
| P.336 | |

| Cpd No. | Structure |
|------------|---|
| P.337 | O N |
| P.338 | N N N N N N N N N N N N N N N N N N N |
| P.339 | |
| P.340 | |
| P.341 | |
| P.342 | N N N N N N N N N N |

| Cpd No. | Structure |
|------------|--|
| P.343 | N N N N N N N N N N N N N N N N N N N |
| P.344 | N N N N N N N N N N N N N N N N N N N |
| P.345 | N N N N N N N N N N N N N N N N N N N |
| P.346 | |
| P.347 | |
| P.348 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{S}}^{\mathrm{H}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ |

| Cpd No. | Structure |
|------------|--|
| P.349 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| P.350 | -0 N H N |
| P.351 | $\bigcap_{\mathrm{Br}}^{\mathrm{N}}\bigcap_{\mathrm{S}}^{\mathrm{H}}$ |
| P.352 | N H N |
| P.353 | $\bigcap_{\mathrm{Br}} \bigvee_{\mathrm{N}} $ |
| P.354 | r r r r r r r r r r |
| P.355 | F O N H N |

-continued

| Cpd No. | Structure |
|------------|--|
| P.356 | $\bigcup_{\mathrm{Br}} \bigvee_{\mathrm{N}} $ |
| P.357 | $\bigcup_{\mathrm{Br}} \bigvee_{\mathrm{N}} $ |
| P.358 | $\bigcup_{N} \bigcup_{N} \bigcup_{N$ |
| P.359 | $\bigcap_{N} \bigvee_{H} \bigvee_{N} \bigvee_{N}$ |
| P.360 | N H N |
| P.361 | |

-continued

| | Continued |
|------------|--|
| Cpd No. | Structure |
| P.362 | |
| P.363 | |
| P.364 | |
| P.365 | $\begin{array}{c c} & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & &$ |
| P.366 | $\begin{array}{c c} & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\$ |
| P.367 | |
| P.368 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ |

-continued

| Cpd No. | Structure |
|------------|---|
| P.369 | $\begin{array}{c} F \\ \hline \\ F \end{array}$ |
| P.370 | |
| P.371 | $\begin{array}{c c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$ |
| P.372 | |

Table A discloses 1201 sets of meanings of the variables $\,^{45}$ $R_1,\,R_2,\,R_5$ and R_6 in a compound of formula I.

TABLE A

| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|--|-----------------|---------------------------------|-------|----------------|--|
| Line | R_1 | R_2 | R_6 | R ₅ | |
| A.1.1 | СН3 | CH₂CH₃ | Н | CI F H F | |
| A.1.2 | CH_3 | CH ₂ CH ₃ | Н | HF CI | |

TABLE A-continued

| | TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|---------------|---|---------------------------------|---|---|--|--|
| | | | | 5 and R ₆ : | | |
| A.1.3 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F F | | |
| A.1.4 | СН3 | CH₂CH₃ | Н | N | | |
| A.1.5 | CH ₃ | CH₂CH₃ | Н | F F | | |
| A.1.6 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F F | | |
| A.1.7 | CH ₃ | CH ₂ CH ₃ | Н | F F F | | |
| A.1.8 | CH ₃ | CH ₂ CH ₃ | Н | H_3C — S — F | | |
| A .1.9 | CH ₃ | CH ₂ CH ₃ | Н | O = S $F = F$ | | |
| A.1.10 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C O F F F | | |
| A.1.11 | CH ₃ | CH ₂ CH ₃ | Н | $\begin{array}{c} H \xrightarrow{F} O \\ H_3C \xrightarrow{CH_3} \end{array}$ | | |

TABLE A-continued

| | TABLE A-continued | | | | | |
|--------|-------------------|---------------------------------|-----------------------|---------------------|--|--|
| | | Meanings t | for R_1, R_2, R_5 a | nd R ₆ : | | |
| A.1.12 | CH_3 | CH ₂ CH ₃ | Н | | | |
| A.1.13 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | CI | | |
| A.1.14 | CH_3 | CH ₂ CH ₃ | Н | | | |
| A.1.15 | CH ₃ | CH₂CH₃ | Н | CI | | |
| A.1.16 | СН3 | CH₂CH₃ | Н | CI | | |
| A.1.17 | CH ₃ | $\mathrm{CH_2CH_3}$ | Н | CI | | |
| A.1.18 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | CI | | |
| A.1.19 | СН3 | CH₂CH₃ | Н | CI | | |
| A.1.20 | CH ₃ | CH ₂ CH ₃ | н | CI' | | |
| A.1.21 | CH ₃ | CH ₂ CH ₃ | Н | CI | | |

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TABLE A-continued

| TABLE A-continued | | | | | | |
|-------------------|--|---------------------------------|---|---|--|--|
| | Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
| A.1.22 | CH ₃ | CH ₂ CH ₃ | Н | CI | | |
| A.1.23 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C — | | |
| A.1.24 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | $_{ m H_{3}C}$ | | |
| A.1.25 | СН3 | CH ₂ CH ₃ | Н | \subset CH ₃ | | |
| A.1.26 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.27 | CH ₃ | CH ₂ CH ₃ | Н | Cl—H ₃ C | | |
| A.1.28 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C ———————————————————————————————————— | | |
| A.1.29 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CH ₃ | | |
| A.1.30 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F— | | |
| A.1.31 | СН3 | CH₂CH₃ | Н | F | | |
| A.1.32 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F | | |

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TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|---|-----------------|---------------------------------|---|--|--|
| | | | | K ₆ : | |
| A.1.33 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | F | |
| A.1.34 | CH_3 | CH ₂ CH ₃ | Н | F | |
| A.1.35 | CH ₃ | CH ₂ CH ₃ | Н | F F | |
| A.1.36 | СН3 | CH ₂ CH ₃ | н | F——F | |
| A.1.37 | СН3 | CH ₂ CH ₃ | Н | F F | |
| A.1.38 | CH ₃ | CH ₂ CH ₃ | н | CI | |
| A.1.39 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F—CI | |
| A.1.40 | CH_3 | CH ₂ CH ₃ | Н | F————————————————————————————————————— | |
| A.1.41 | СН3 | CH ₂ CH ₃ | н | $F \longrightarrow F$ | |

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TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|--|-----------------|---------------------------------|---|----------------------------------|--|
| A.1.42 | CH ₃ | CH ₂ CH ₃ | Н | CI | |
| A.1.43 | СН3 | CH ₂ CH ₃ | Н | ci' či | |
| A.1.44 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | | |
| A.1.45 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | F | |
| A.1.46 | СН3 | CH₂CH₃ | Н | F F F | |
| A.1.47 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C — | |
| A.1.48 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C | |
| A.1.49 | CH ₃ | CH₂CH₃ | Н | H ₃ C CH ₃ | |

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TABLE A-continued

| | | TABL | E A-cont | finued |
|--------|-----------------|---------------------------------|---------------------------------------|----------------------------------|
| | | Meanings t | For R ₁ , R ₂ , | R_5 and R_6 : |
| A.1.50 | СН3 | CH₂CH₃ | Н | |
| A.1.51 | CH ₃ | CH₂CH₃ | Н | |
| A.1.52 | СН3 | CH ₂ CH ₃ | Н | |
| A.1.53 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C |
| A.1.54 | CH ₃ | CH₂CH₃ | Н | H ₃ C CH ₃ |
| A.1.55 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C |
| A.1.56 | СН3 | CH₂CH₃ | Н | |

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TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|--|-----------------|---------------------------------|---|--|--|
| A.1.57 | CH ₃ | CH ₂ CH ₃ | Н | | |
| A.1.58 | СН3 | CH₂CH₃ | Н | Br | |
| A.1.59 | СН3 | CH ₂ CH ₃ | н | | |
| A.1.60 | СН3 | CH₂CH₃ | Н | | |
| A.1.61 | CH ₃ | CH ₂ CH ₃ | Н | | |
| A.1.62 | CH ₃ | CH ₂ CH ₃ | н | | |
| A.1.63 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ | |
| A.1.64 | CH_3 | $\mathrm{CH_{2}CH_{3}}$ | Н | O————————————————————————————————————— | |

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TABLE A-continued

| | TABLE A-continued | | | | | |
|----------------|-------------------|---------------------------------|--|--------------------------------------|--|--|
| | | Meanings t | For R ₁ , R ₂ , R ₅ | and R ₆ : | | |
| A.1.65 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | 0 | | |
| A.1.66 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | | | |
| A.1.67 | CH ₃ | CH₂CH₃ | Н | F | | |
| A.1.68 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ N | | |
| A.1.69 | CH ₃ | CH₂CH₃ | Н | H ₃ C — N CH ₃ | | |
| A .1.70 | СН3 | CH ₂ CH ₃ | Н | H_2C | | |
| A.1.71 | СН3 | CH₂CH₃ | Н | S—CH ₃ | | |
| A.1.72 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CH ₃ F F F | | |

TABLE A-continued

| TABLE A-continued | | | | |
|-------------------|-----------------|---------------------------------|--|------------------------|
| | | Meanings f | For R ₁ , R ₂ , R ₅ a | and R ₆ : |
| A.1.73 | CH ₃ | CH ₂ CH ₃ | Н | F F |
| A.1.74 | СН3 | CH ₂ CH ₃ | Н | F F F H ₃ C |
| A.1.75 | СН3 | CH ₂ CH ₃ | Н | F F F CI |
| A.1.76 | CH ₃ | CH ₂ CH ₃ | Н | F F F Br |
| A.1.77 | СН3 | CH ₂ CH ₃ | Н | F F F |
| A.1.78 | СН₃ | CH ₂ CH ₃ | н | F F H_2 C |
| A.1.79 | CH ₃ | CH₂CH₃ | Н | H ₃ C |
| A.1.80 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | н | CI F F CI |

TABLE A-continued

| | | TABL | E A-c ontir | nued |
|--------|-----------------|---------------------------------|---------------------------|---|
| | | Meanings f | For R_1 , R_2 , R_5 | and R_6 : |
| A.1.81 | CH ₃ | CH ₂ CH ₃ | Н | F F |
| A.1.82 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F |
| A.1.83 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C H ₃ C |
| A.1.84 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C H ₃ CH ₃ |
| A.1.85 | CH_3 | CH₂CH₃ | Н | H_3C H_3C |
| A.1.86 | СН3 | CH ₂ CH ₃ | Н | CH ₃ |
| | | | | H ₃ C |
| A.1.87 | CH ₃ | CH ₂ CH ₃ | Н | H_3C CH_3 CH_3 |
| | | | | H ₃ C |
| A.1.88 | CH ₃ | CH₂CH₃ | Н | H ₃ C CH ₃ |
| A.1.89 | СН3 | CH₂CH₃ | Н | CI———————————————————————————————————— |
| | | 23 | - | H ₃ C |
| A.1.90 | CH ₃ | CH ₂ CH ₃ | Н | $F \xrightarrow{F} H_{3}C$ |

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TABLE A-continued

| | TABLE A-continued | | | | |
|--------|-------------------|---------------------------------|--|-----------------------|--|
| | | Meanings f | For R ₁ , R ₂ , R ₅ | and R ₆ : | |
| A.1.91 | СН3 | CH ₂ CH ₃ | Н | $F \xrightarrow{F}$ | |
| A.1.92 | CH ₃ | CH ₂ CH ₃ | Н | F F F F F | |
| A.1.93 | СН3 | CH₂CH₃ | Н | F F H_3C H_3C | |
| A.1.94 | CH ₃ | CH ₂ CH ₃ | Н | cı' | |
| A.1.95 | СН3 | CH ₂ CH ₃ | Н | | |
| A.1.96 | CH_3 | CH ₂ CH ₃ | Н | | |
| A.1.97 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | CI | |
| A.1.98 | CH_3 | CH₂CH₃ | Н | $_{ m H_3C}$ | |

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TABLE A-continued

| | | Meanings | for R ₁ , R ₂ , R ₅ | and R ₆ : |
|---------|-----------------|---------------------------------|--|---|
| A.1.99 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.100 | СН₃ | CH₂CH₃ | Н | CI |
| A.1.101 | CH ₃ | CH₂CH₃ | Н | Br — |
| A.1.102 | CH ₃ | CH ₂ CH ₃ | Н | OH OH |
| A.1.103 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | O—CH ₃ |
| A.1.104 | СН3 | CH ₂ CH ₃ | Н | O—CH ₃ |
| A.1.105 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ |
| A.1.106 | СН3 | CH₂CH₃ | Н | $O \longrightarrow CH_3$ CH_3 CH_3 CH_3 |

TABLE A-continued

| IABLE A-continued | | | | |
|-------------------|-----------------|-------------------------|--|---|
| | | Meanings | for R ₁ , R ₂ , R ₅ | ₅ and R ₆ : |
| A.1.107 | CH_3 | CH₂CH₃ | Н | $O \longrightarrow CH_3$ |
| A.1.108 | CH ₃ | CH₂CH₃ | Н | |
| A.1.109 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $O \longrightarrow CH_2$ $O \longrightarrow CH_3$ |
| A.1.110 | CH_3 | $\mathrm{CH_{2}CH_{3}}$ | Н | O—H —CH ₂ |
| A.1.111 | CH_3 | CH₂CH₃ | Н | O—CH ₃ |
| A.1.112 | CH ₃ | CH₂CH₃ | Н | O—H CH |
| | | | | |

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TABLE A-continued

| | | | EA-conti | |
|---------|-----------------|---------------------------------|--|--|
| | | | for R ₁ , R ₂ , R ₅ | 5 and N ₆ : |
| A.1.113 | СН3 | CH ₂ CH ₃ | Н | O————————————————————————————————————— |
| A.1.114 | CH ₃ | CH₂CH₃ | Н | o F |
| A.1.115 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $ \begin{array}{c} $ |
| A.1.116 | СН3 | CH₂CH₃ | Н | H_3C O NH_2 |
| A.1.117 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $O = \bigvee_{\substack{N \\ H}} CH_3$ |
| A.1.118 | CH ₃ | CH ₂ CH ₃ | Н | $O \longrightarrow \bigvee_{\text{CH}_3}$ |

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TABLE A-continued

| TABLE A-continued | | | | | |
|-------------------|-----------------|---------------------------------|--|--|--|
| | | | for R ₁ , R ₂ , R ₅ a | and R ₆ : | |
| A.1.119 | СН3 | CH ₂ CH ₃ | Н | $O \longrightarrow N \longrightarrow CH_2$ | |
| A.1.120 | CH ₃ | CH ₂ CH ₃ | н | O————————————————————————————————————— | |
| A.1.121 | СН3 | CH ₂ CH ₃ | н | | |
| A.1.122 | CH_3 | $\mathrm{CH_{2}CH_{3}}$ | н | H ₃ C | |
| A.1.123 | CH₃ | CH₂CH₃ | Н | N NH | |
| A.1.124 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | N CH ₃ | |
| A.1.125 | СН ₃ | $\mathrm{CH_{2}CH_{3}}$ | н | S S NH_2 | |

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|---|---|--|--|
| | | Meanings: | for R ₁ , R ₂ , R ₅ an | nd R ₆ : | | |
| A.1.126 | СН3 | CH₂CH₃ | Н | | | |
| A.1.127 | CH ₃ | CH ₂ CH ₃ | н | F F | | |
| A.1.128 | CH ₃ | CH₂CH₃ | Н | | | |
| A.1.129 | СН3 | CH₂CH₃ | Н | H ₃ C CH ₃ | | |
| A.1.130 | СН3 | CH ₂ CH ₃ | н | H CH ₃ | | |
| A.1.131 | СН3 | CH₂CH₃ | н | H ₃ C N | | |
| A.1.132 | СН3 | CH ₂ CH ₃ | н | H ₃ C | | |
| A.1.131 | СН3 | CH₂CH₃ | н | H CH ₃ H ₃ C N Cl H ₃ C H ₃ C H ₃ C | | |

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TABLE A-continued

| | IABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|-----------------------------|---------------------|--|--|
| | | Meanings t | for R_1 , R_2 , R_5 a | nd R ₆ : | | |
| A.1.133 | CH ₃ | CH ₂ CH ₃ | Н | | | |
| A.1.134 | CH ₃ | CH ₂ CH ₃ | Н | | | |
| A.1.135 | CH ₃ | CH₂CH₃ | н | CI | | |
| A.1.136 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | н | H ₃ C | | |
| A.1.137 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.138 | CH ₃ | CH ₂ CH ₃ | Н | CI O O F F | | |

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TABLE A-continued

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|--|---|--|--|
| | | Meanings t | For R ₁ , R ₂ , R ₅ | and R ₆ : | | |
| A.1.139 | CH ₃ | CH ₂ CH ₃ | Н | CI | | |
| A.1.140 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F F H_2C O | | |
| A.1.141 | CH ₃ | CH₂CH₃ | Н | $F \xrightarrow{F} O$ | | |
| A.1.142 | СН3 | CH ₂ CH ₃ | Н | Cl | | |
| A.1.143 | СН3 | CH ₂ CH ₃ | Н | H_3C H_3C O | | |
| A.1.144 | CH ₃ | CH ₂ CH ₃ | Н | H_3C H | | |
| A.1.145 | СН3 | CH₂CH₃ | Н | H ₃ C O | | |
| A.1.146 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | | | |
| A.1.147 | CH ₃ | CH ₂ CH ₃ | Н | | | |

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TABLE A-continued

| TABLE A-continued | | | | | |
|-------------------|-----------------|---------------------------------|--|------------------------|--|
| | | Meanings t | for R ₁ , R ₂ , R ₅ | and R_6 : | |
| A.1.148 | CH ₃ | CH ₂ CH ₃ | Н | CI F O | |
| A.1.149 | СН3 | CH₂CH₃ | Н | F Br | |
| A.1.150 | СН3 | CH ₂ CH ₃ | Н | F O CI | |
| A.1.151 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | CI CI H ₃ C | |
| A.1.152 | CH ₃ | CH ₂ CH ₃ | Н | F CI | |
| A.1.153 | CH ₃ | CH ₂ CH ₃ | Н | | |
| A.1.154 | CH ₃ | CH ₂ CH ₃ | Н | Ĥ | |
| A.1.155 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ | |

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TABLE A-continued

| TABLE A-continued | | | | | |
|-------------------|---|---|--|--|--|
| | Meanings t | for R_1 , R_2 , R_5 | and R ₆ : | | |
| CH ₃ | CH ₂ CH ₃ | Н | | | |
| СН3 | CH ₂ CH ₃ | Н | CH ₃ | | |
| $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C O | | |
| СН3 | CH ₂ CH ₃ | Н | | | |
| СН3 | CH ₂ CH ₃ | Н | | | |
| CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | | | |
| CH ₃ | CH ₂ CH ₃ | Н | N N | | |
| СН3 | CH ₂ CH ₃ | Н | H ₃ C—Si | | |
| $\mathrm{CH_3}$ | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C CH ₃ Si CH ₃ | | |
| | CH ₃ CH ₃ CH ₃ CH ₃ | CH ₃ CH ₂ CH ₃ | Meanings for R1, R2, R5 CH3 CH2CH3 H CH3 CH2CH3 H | | |

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TABLE A-continued

| | | 17 11012 | 1571 Contin | 1404 |
|-----------------|-----------------|---------------------------------|---------------------------|--|
| | | Meanings t | for R_1 , R_2 , R_5 | and R_6 : |
| A.1.165 | СН3 | CH ₂ CH ₃ | Н | |
| | | | | H_3C CH_3 CH_3 |
| A.1.166 | CH_3 | CH ₂ CH ₃ | Н | 0—Si |
| | | | | H ₃ C — CH ₃ |
| A.1.167 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| | | | | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ |
| A.1.168 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.169 | CH_3 | CH₂CH₃ | Н | H ₃ C — Si H ₃ C CH ₃ |
| | Ü | | | Cl———————————————————————————————————— |
| A .1.170 | СН3 | CH ₂ CH ₃ | Н | H ₃ c´ CH ₃ |
| | | | | H ₃ C—Si |
| A.1.171 | CH ₃ | CH ₂ CH ₃ | Н | Н₃С СН₃ |
| A.1.172 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | но |
| | | | | H ₃ C — O |
| | | | | |

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TABLE A-continued

| | | Meanings t | for R ₁ , R ₂ , R | ₋₅ and R ₆ : |
|---------|-----------------|---------------------------------|---|------------------------------------|
| A.1.173 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.174 | CH ₃ | CH ₂ CH ₃ | Н | H_3C H_3C H_3C |
| A.1.175 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.176 | СН3 | CH ₂ CH ₃ | Н | H ₃ C — O |
| A.1.177 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | H_3C H_3C O |
| A.1.178 | СН3 | CH ₂ CH ₃ | Н | H ₃ C' |
| A.1.179 | СН3 | CH ₂ CH ₃ | н | |

| | TABLE A-continued | | | | | | |
|---------|--|---------------------------------|---|--------------------|--|--|--|
| | Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | | | | | |
| A.1.180 | СН3 | CH ₂ CH ₃ | Н | | | | |
| A.1.181 | СН3 | CH₂CH₃ | Н | CH ₃ | | | |
| A.1.182 | CH ₃ | CH₂CH₃ | Н | F O | | | |
| A.1.183 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | F O | | | |
| A.1.184 | CH ₃ | CH ₂ CH ₃ | Н | F O | | | |
| A.1.185 | CH ₃ | CH₂CH₃ | Н | F F F | | | |
| A.1.186 | СН3 | CH₂CH₃ | н | H ₃ C O | | | |
| A.1.187 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | | | | |

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TABLE A-continued

| | | Meanings: | for R ₁ , R ₂ , | R ₅ and R ₆ : |
|-----------------|-----------------|---------------------------------|---------------------------------------|-------------------------------------|
| A.1.188 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |
| A.1.189 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.190 | СН3 | CH ₂ CH ₃ | Н | |
| A .1.191 | СН3 | CH ₂ CH ₃ | Н | |
| A.1.192 | СН3 | CH ₂ CH ₃ | Н | |
| A.1.193 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | |
| A.1.194 | CH₃ | CH₂CH₃ | Н | F F F |
| A.1.195 | CH₃ | CH₂CH₃ | Н | CI |
| | | | | H_3C CH_3 |

TABLE A-continued

| TABLE A-continued | | | | | |
|-------------------|-----------------|---------------------------------|---|------------------------------------|--|
| | | Meanings t | for R ₁ , R ₂ , R | ₋₅ and R ₆ : | |
| A.1.196 | CH ₃ | CH ₂ CH ₃ | Н | | |
| A.1.197 | CH ₃ | CH ₂ CH₃ | Н | F | |
| A.1.198 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | F | |
| A.1.199 | CH ₃ | CH₂CH₃ | Н | H ₂ C | |
| A.1.200 | СН3 | CH₂CH₃ | Н | H ₂ C | |
| A.1.201 | CH ₃ | CH₂CH₃ | н | H ₃ C | |
| A.1.202 | СН3 | CH₂CH₃ | Н | H ₃ C | |
| A.1.203 | СН3 | CH ₂ CH ₃ | Н | CI | |

TABLE A-continued

| | Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | |
|---------|--|---------------------------------|--|------------------|--|--|
| | | Meanings 1 | or K ₁ , K ₂ , R | 5 and K6: | | |
| A.1.204 | CH_3 | CH₂CH₃ | Н | CI | | |
| A.1.205 | CH ₃ | CH₂CH₃ | Н | ci' | | |
| A.1.206 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | HC" | | |
| A.1.207 | СН3 | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.208 | CH ₃ | CH ₂ CH ₃ | Н | HC | | |
| A.1.209 | СН3 | CH₂CH₃ | Н | | | |
| | | | | CI | | |

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TABLE A-continued

| | | Meanings : | for R ₁ , R ₂ , R | 3 and R ₆ : |
|---------|-----------------|---------------------------------|---|---------------------------------------|
| A.1.210 | СН3 | CH₂CH₃ | Н | CH ₃ |
| A.1.211 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | H ₃ C CH ₃ |
| A.1.212 | СН3 | CH₂CH₃ | Н | F |
| A.1.213 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | F |
| A.1.214 | СН3 | CH ₂ CH ₃ | Н | H ₂ C — H ₃ C H |
| A.1.215 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₂ C — O |

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TABLE A-continued

| TABLE A-continued | | | | | | |
|-------------------|-----------------|---------------------------------|---|------------------------------------|--|--|
| | | Meanings t | for R ₁ , R ₂ , R | ₋₅ and R ₆ : | | |
| A.1.216 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C O | | |
| A.1.217 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C O | | |
| A.1.218 | СН3 | CH ₂ CH ₃ | Н | | | |
| A.1.219 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CI | | |
| A.1.220 | CH₃ | $\mathrm{CH_{2}CH_{3}}$ | н | CI | | |
| A.1.221 | СН3 | CH₂CH₃ | Н | HC | | |
| A.1.222 | $\mathrm{CH_3}$ | CH₂CH₃ | н | H_3C H_3C H_3C | | |

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TABLE A-continued

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|---|---------------------------------|--|--|
| | | Meanings t | for R ₁ , R ₂ , R | 5 and R ₆ : | | |
| A.1.223 | СН3 | CH ₂ CH ₃ | Н | | | |
| A.1.224 | СН3 | CH ₂ CH ₃ | Н | | | |
| A.1.225 | СН3 | CH₂CH₃ | Н | CI | | |
| A.1.226 | СН3 | CH₂CH₃ | н | CH ₃ CH ₃ | | |
| A.1.227 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | F | | |
| A.1.228 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | F S | | |

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TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | | | |
|--|-----------------|---------------------------------|---|--|--|--|
| A.1.229 | CH ₃ | CH ₂ CH ₃ | H | H ₃ CS | | |
| | 3 | 2 3 | | | | |
| A.1.230 | СН3 | CH ₂ CH ₃ | Н | CIS | | |
| A.1.231 | CH ₃ | CH ₂ CH ₃ | Н | s | | |
| A.1.232 | CH_3 | CH ₂ CH ₃ | Н | CI H— | | |
| A.1.233 | CH_3 | CH₂CH₃ | Н | H ₃ CSi | | |
| A.1.234 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H_3C H_3C CH_3 H_3C Si | | |
| A.1.235 | CH ₃ | CH₂CH₃ | Н | H ₃ C H ₃ C CH ₃ Si | | |
| A.1.236 | CH_3 | CH₂CH₃ | Н | CH_3 H_3C CH_3 H_3C CH_3 H_3C CH_3 | | |
| A.1.237 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.238 | СН3 | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.239 | CH₃ | CH₂CH₃ | Н | H ₃ C S _i S _i H ₃ C S _i | | |
| A.1.240 | CH ₃ | CH₂CH₃ | Н | H ₃ C H ₃ C | | |
| | | | | CH ₃ Si Si H ₃ C | | |

TABLE A-continued

| TABLE A-continued | | | | |
|-------------------|-----------------|---------------------------------|---------------------------------------|--|
| | | Meanings | for R ₁ , R ₂ , | R ₅ and R ₆ : |
| A.1.241 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CH ₃ Si H ₃ C |
| A.1.242 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | Cl CH ₃ CH ₃ CH ₃ |
| A.1.243 | СН3 | CH ₂ CH ₃ | Н | F F F CH ₃ |
| A.1.244 | СН3 | CH ₂ CH ₃ | Н | H_3C O S_i H_3C H_3C |
| A.1.245 | CH_3 | CH ₂ CH ₃ | Н | H ₃ C— |
| A.1.246 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.247 | CH ₃ | CH₂CH₃ | Н | $_{ m H_3C}$ |
| A.1.248 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.249 | CH ₃ | CH₂CH₃ | Н | $_{ m H_3C}$ |
| A.1.250 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ |
| A.1.251 | CH_3 | CH ₂ CH ₃ | Н | H CH_3 H_3C |
| A.1.252 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ |
| A.1.253 | $\mathrm{CH_3}$ | CH ₂ CH₃ | Н | $\begin{array}{c} H \\ \\ H_3C \end{array} \begin{array}{c} CH_3 \\ \\ CH_3 \end{array}$ |
| A.1.254 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |

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TABLE A-continued

| | IABLE A-continued | | | | | | |
|---------|-------------------|---------------------------------|--|---|--|--|--|
| | | Meanings | for R ₁ , R ₂ , R ₅ | and R ₆ : | | | |
| A.1.255 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C CH ₃ | | | |
| A.1.256 | CH ₃ | CH ₂ CH ₃ | Н | $_{\text{CH}_{3}}^{\text{H}_{3}\text{C}}$ | | | |
| A.1.257 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ | | | |
| A.1.258 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H_3C CH_3 | | | |
| A.1.259 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | H_3C CH_3 CH_3 | | | |
| A.1.260 | CH_3 | CH₂CH₃ | Н | CI | | | |
| A.1.261 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | Cl | | | |
| A.1.262 | CH_3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CI | | | |
| A.1.263 | СН3 | CH₂CH₃ | Н | CI | | | |
| A.1.264 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | CI | | | |
| A.1.265 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | CI | | | |
| A.1.266 | CH ₃ | CH ₂ CH ₃ | Н | CI CI | | | |
| A.1.267 | CH ₃ | CH ₂ CH ₃ | Н | Cl H ₃ C Cl | | | |
| A.1.268 | CH ₃ | CH ₂ CH ₃ | Н | CI CH ₃ | | | |
| A.1.269 | CH ₃ | CH ₂ CH ₃ | Н | CI | | | |

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TABLE A-continued

| TABLE A-continued | | | | |
|-------------------|-----------------|---------------------------------|---|--------------------------------------|
| | | | | |
| A.1.271 | CH ₃ | CH ₂ CH ₃ | Н | F F |
| A.1.272 | СН3 | CH ₂ CH ₃ | Н | $_{\mathrm{F}}$ $_{\mathrm{CH}_{3}}$ |
| A.1.273 | CH ₃ | CH ₂ CH ₃ | Н | \triangleright |
| A.1.274 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.275 | CH_3 | CH ₂ CH ₃ | Н | $_{ m H_{3}C}$ |
| A.1.276 | $\mathrm{CH_3}$ | $\mathrm{CH_{2}CH_{3}}$ | Н | $_{ m H_3C}$ |
| A.1.277 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $_{ m H_3C}$ |
| A.1.278 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.279 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.280 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $_{ m H_3C}$ |
| A.1.281 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.282 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.283 | СН3 | CH ₂ CH ₃ | Н | |

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TABLE A-continued

| | TABLE A-continued | | | | | | |
|---------|-------------------|---------------------------------|---|----------------------|--|--|--|
| | | Meanings f | or R ₁ , R ₂ , R ₅ a | and R ₆ : | | | |
| A.1.284 | СН3 | CH ₂ CH ₃ | Н | H ₃ C | | | |
| A.1.285 | СН3 | CH ₂ CH ₃ | Н | | | | |
| A.1.286 | СН3 | CH ₂ CH ₃ | Н | | | | |
| A.1.287 | CH_3 | CH ₂ CH ₃ | Н | | | | |
| A.1.288 | CH ₃ | CH ₂ CH ₃ | Н | | | | |
| A.1.289 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C | | | |
| A.1.290 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C | | | |
| A.1.291 | CH ₃ | CH ₂ CH ₃ | Н | Cl | | | |
| A.1.292 | СН3 | CH ₂ CH ₃ | Н | | | | |
| A.1.293 | СН3 | CH ₂ CH ₃ | Н | H ₃ C | | | |
| A.1.294 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | H ₃ C | | | |

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TABLE A-continued

| | | Meanings t | for R ₁ , R ₂ , R ₅ | and R ₆ : |
|---------|-----------------|---------------------------------|--|---|
| A.1.295 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |
| A.1.296 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.297 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.298 | СН3 | CH ₂ CH ₃ | Н | CI |
| A.1.299 | СН3 | CH ₂ CH ₃ | Н | CI |
| A.1.300 | CH ₃ | CH₂CH₃ | Н | H ₃ C Si H ₃ C |
| A.1.301 | CH ₃ | CH ₂ CH ₃ | Н | $\begin{array}{c c} H_3C & CH_3 \\ H & & \\ & \\ H_3C & CH_3 \end{array}$ |
| A.1.302 | СН3 | CH ₂ CH ₃ | Н | H_3C H_3C H_3C H_3C H_3C H_3C H_3C |
| A.1.303 | CH_3 | CH ₂ CH ₃ | Н | CH ₃ Si H ₃ C |
| A.1.304 | CH ₃ | CH ₂ CH ₃ | Н | Si CH ₃ |

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TABLE A-continued

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|---|---|--|--|
| | | | | | | |
| A.1.305 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ Si H ₃ C | | |
| A.1.306 | CH ₃ | CH₂CH₃ | Н | CH ₃ | | |
| A.1.307 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ H ₃ C — Si — CH ₃ | | |
| A.1.308 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C CH ₃ H ₃ C Si | | |
| A.1.309 | СН3 | CH ₂ CH ₃ | Н | H_3C CH_3 H_3C Si | | |
| A.1.310 | СН3 | CH ₂ CH ₃ | Н | H_3C CH_3 CH_3 CH_3 CH_3 | | |
| A.1.311 | CH ₃ | CH ₂ CH ₃ | Н | CH ₃ | | |
| A.1.312 | $\mathrm{CH_3}$ | CH₂CH₃ | Н | H ₃ C CH ₃ | | |
| A.1.313 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H_3C CH_3 CH_3 CH_3 | | |
| A.1.314 | СН3 | CH ₂ CH ₃ | Н | H_3C CH_3 H_3C Si H_3C | | |

TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | | | |
|---|-----------------|---------------------------------|---|---|
| A.1.315 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C H ₃ C Si |
| A.1.316 | CH ₃ | CH ₂ CH ₃ | Н | H_3C H_3C H_3C H_3C |
| A.1.317 | CH_3 | CH₂CH₃ | Н | Н2С= |
| A.1.318 | СН3 | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.319 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.320 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.321 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ |
| A.1.322 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.323 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.324 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |
| A.1.325 | СН3 | CH ₂ CH ₃ | Н | H_2C |
| A.1.326 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.327 | CH ₃ | CH ₂ CH ₃ | Н | |

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TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : A.1.328 CH ₃ CH ₂ CH ₃ H | _ |
|--|------------------|
| / | _ |
| | 4 |
| A.1.329 CH_3 CH_2CH_3 H F | |
| A.1.330 CH ₃ CH ₂ CH ₃ H | |
| A.1.331 CH_3 CH_2CH_3 H_{2C} | |
| A.1.332 CH_3 CH_2CH_3 H H_3C | CH ₃ |
| A.1.333 CH_3 CH_2CH_3 H H_3C | |
| A.1.334 CH ₃ CH ₂ CH ₃ H | |
| A.1.335 CH ₃ CH ₂ CH ₃ H H ₂ C | H ₃ C |
| A.1.336 CH_3 CH_2CH_3 H H_2C | H ₃ C |
| A.1.337 CH ₃ CH ₂ CH ₃ H | ~° |
| A.1.338 CH_3 CH_2CH_3 H H_3C | ° |
| A.1.339 CH ₃ CH ₂ CH ₃ H H ₃ C | ~ |
| A.1.340 CH_3 CH_2CH_3 H H_3C H H_3C | |

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TABLE A-continued

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|---|--|--|--|
| | | Meanings t | or R ₁ , R ₂ , R ₅ | and R ₆ : | | |
| A.1.341 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C O | | |
| A.1.342 | CH ₃ | CH ₂ CH ₃ | Н | $_{ m H_3C}$ | | |
| A.1.343 | СН3 | CH ₂ CH ₃ | Н | $_{\mathrm{H_3C}}$ $\overset{\mathrm{H}}{\smile}$ $\overset{\mathrm{CH_3}}{\smile}$ $\overset{\mathrm{O}}{\smile}$ | | |
| A.1.344 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.345 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ C | | |
| A.1.346 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C | | |
| A.1.347 | СН3 | CH ₂ CH ₃ | Н | $H_{3}C$ $H_{3}C$ O | | |
| A.1.348 | СН3 | CH ₂ CH ₃ | Н | НО | | |
| A.1.349 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C O | | |
| A.1.350 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C — O — _ | | |
| A.1.351 | СН3 | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{O}}$ $_{\mathrm{C}}$ | | |
| A.1.352 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}^{\mathrm{H_{3}C}}$ $_{\mathrm{C}}^{\mathrm{CH_{3}}}$ | | |
| A.1.353 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ C | | |

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TABLE A-continued

| | | TABL | E A-contii | nued |
|---------|-----------------|---------------------------------|--|---|
| | | Meanings f | For R ₁ , R ₂ , R ₅ | and R_6 : |
| A.1.354 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ C H ₃ C |
| A.1.355 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C O |
| A.1.356 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.357 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₂ C CH ₃ CH ₃ |
| A.1.358 | CH ₃ | CH ₂ CH ₃ | Н | H_3C CH_3 CH_3 CH_3 |
| A.1.359 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ CH ₃ |
| A.1.360 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | $\begin{array}{c} \text{CH}_3 \\ \text{CH}_3 \end{array}$ |
| A.1.361 | СН3 | CH₂CH₃ | Н | |
| A.1.362 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ C CH ₃ |
| A.1.363 | СН3 | CH ₂ CH ₃ | Н | H ₃ C — CH ₃ |
| A.1.364 | CH_3 | CH ₂ CH ₃ | H | CI |

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TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | |
|--|-----------------|---------------------------------|---|----------------------------------|
| A.1.365 | СН3 | CH ₂ CH ₃ | H | CI CI |
| A.1.366 | СН3 | CH₂CH₃ | Н | |
| A.1.367 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.368 | CH ₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | $F \xrightarrow{F}$ |
| A.1.369 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.370 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CI |
| A. 1.371 | СН₃ | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ CO |
| A.1.372 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |
| A.1.373 | СН₃ | CH ₂ CH ₃ | Н | H_3C H_3C H_3C |

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TABLE A-continued

| | | TABL | E A-c ontii | nued |
|---------|-----------------|---------------------------------|--|------------------------------------|
| | | Meanings t | for R ₁ , R ₂ , R ₅ | and R ₆ : |
| A.1.374 | CH ₃ | CH ₂ CH ₃ | Н | H_3C H_3C CH_3 |
| A.1.375 | СН3 | CH ₂ CH ₃ | Н | H ₃ C O CH ₃ |
| A.1.376 | CH ₃ | CH ₂ CH ₃ | Н | H ₂ C — O |
| A.1.377 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |
| A.1.378 | СН3 | CH₂CH₃ | Н | |
| A.1.379 | CH ₃ | CH ₂ CH ₃ | Н | |
| A.1.380 | СН3 | CH ₂ CH ₃ | Н | H ₃ C — O |
| A.1.381 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.382 | CH ₃ | CH₂CH₃ | Н | HS |
| A.1.383 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C S |
| A.1.384 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.385 | CH ₃ | CH₂CH₃ | Н | H_3C H_3C S |
| A.1.386 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ |

TABLE A-continued

| | TABLE A-continued | | | | | |
|---------|-------------------|---------------------------------|---|---|--|--|
| | | Meanings t | or R ₁ , R ₂ , R ₅ | and R ₆ : | | |
| A.1.387 | CH ₃ | CH₂CH₃ | Н | H ₂ C | | |
| A.1.388 | СН3 | CH₂CH₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{S}}$ $_{\mathrm{S}}$ | | |
| A.1.389 | СН3 | CH ₂ CH ₃ | Н | H ₃ C H ₃ C S S | | |
| A.1.390 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C H ₃ C S S | | |
| A.1.391 | CH_3 | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ | | |
| A.1.392 | CH_3 | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ $_{\mathrm{CH_{3}}}$ | | |
| A.1.393 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | CH ₃ | | |
| A.1.394 | СН3 | CH ₂ CH ₃ | Н | s | | |
| A.1.395 | CH ₃ | CH ₂ CH₃ | Н | | | |
| A.1.396 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | | | |

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TABLE A-continued

| | IABLE A-continued | | | | | | |
|---------|-------------------|---------------------------------|--|--|--|--|--|
| | | Meanings t | for R ₁ , R ₂ , R ₅ | and R ₆ : | | | |
| A.1.397 | CH ₃ | CH ₂ CH ₃ | Н | $_{\mathrm{H_{3}C}}^{\mathrm{H_{3}C}}$ $_{\mathrm{S}}^{\mathrm{CH_{3}}}$ | | | |
| A.1.398 | СН3 | CH ₂ CH ₃ | Н | H ₃ C CH ₃ | | | |
| A.1.399 | CH ₃ | CH₂CH₃ | Н | | | | |
| A.1.400 | СН3 | CH ₂ CH ₃ | Н | CI | | | |
| A.1.401 | CH_3 | CH ₂ CH ₃ | Н | F F S | | | |
| A.1.402 | CH ₃ | CH₂CH₃ | Н | | | | |
| A.1.403 | СН3 | CH ₂ CH ₃ | Н | CI | | | |
| A.1.404 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ CS | | | |
| A.1.405 | CH ₃ | CH ₂ CH ₃ | Н | H_3C H_3C CH_3 | | | |

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TABLE A-continued

| TABLE A-continued | | | | | |
|-------------------|-----------------|---------------------------------|--|--|--|
| | | Meanings | for R ₁ , R ₂ , R ₅ | 5 and R ₆ : | |
| A.1.406 | СН3 | CH ₂ CH ₃ | Н | H_3C H_3C S | |
| A.1.407 | CH ₃ | CH₂CH₃ | Н | H_3C H_3C CH_3 | |
| A.1.408 | CH ₃ | CH ₂ CH ₃ | Н | CI | |
| A.1.409 | CH ₃ | CH ₂ CH₃ | Н | CI— | |
| A.1.410 | СН3 | CH ₂ CH ₃ | Н | H ₃ C O O O O O O O O O O O O O O O O O O O | |
| A.1.411 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H_3C O H_3C O | |
| A.1.412 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | H ₃ C — S | |
| A.1.413 | СН3 | CH₂CH₃ | Н | H ₃ C — S CH ₃ | |
| A.1.414 | СН3 | CH ₂ CH ₃ | Н | $H_{3}C$ S O | |
| A.1.415 | CH ₃ | CH ₂ CH ₃ | Н | s | |
| A.1.416 | СН3 | CH ₂ CH ₃ | Н | HC | |

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TABLE A-continued

| TABLE A-continued | | | | |
|--|-----------------|---------------------------------|---|---------------------------------|
| Meanings for R_1, R_2, R_5 and R_6 : | | | | |
| A.1.417 | СН3 | CH ₂ CH ₃ | Н | HC |
| A.1.418 | СН3 | CH ₂ CH ₃ | Н | $_{ m H_3C}$ |
| A.1.419 | CH ₃ | CH ₂ CH ₃ | Н | Н ₃ С |
| A.1.420 | CH ₃ | CH₂CH₃ | Н | H ₃ C H ₃ |
| A.1.421 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | н | |
| A.1.422 | СН3 | CH ₂ CH ₃ | Н | H ₃ C |
| A.1.423 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | CI |
| A.1.424 | CH ₃ | CH₂CH₃ | Н | CI |
| A.1.425 | CH_3 | $\mathrm{CH_{2}CH_{3}}$ | Н | CI |
| A.1.426 | CH ₃ | CH ₂ CH ₃ | н | CI |
| | | | | |

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TABLE A-continue

| TABLE A-continued | | | | |
|-------------------|-----------------|---------------------------------|---|---------------------------------------|
| | | Meanings t | or R ₁ , R ₂ , R ₅ | and R ₆ : |
| A.1.427 | СН3 | CH ₂ CH ₃ | Н | CI |
| A.1.428 | CH ₃ | CH ₂ CH ₃ | Н | CI |
| A.1.429 | СН3 | CH ₂ CH ₃ | Н | F F |
| A.1.430 | CH ₃ | CH ₂ CH ₃ | Н | F F |
| A.1.431 | СН3 | CH ₂ CH ₃ | Н | F F |
| A.1.432 | CH ₃ | CH ₂ CH ₃ | Н | N N N N N N N N N N N N N N N N N N N |
| A.1.433 | $\mathrm{CH_3}$ | CH ₂ CH ₃ | Н | N N N CH3 |
| A.1.434 | CH ₃ | CH ₂ CH ₃ | Н | H ₃ C N |
| A.1.435 | СН3 | $\mathrm{CH_{2}CH_{3}}$ | Н | H ₃ C N |

TABLE A-

| | | TABL | E A-c ontin | ued |
|--|------------------|---|--------------------|--------|
| Meanings for R_1 , R_2 , R_5 and R_6 : | | | | |
| A.1.436 | СН3 | CH ₂ CH ₃ | Н | S |
| Line | : | $ \stackrel{N}{\underset{R_6}{\bigvee}} \stackrel{R_1}{\underset{R_2}{\bigvee}} $ | | R_5 |
| A.1.437 | — _N / | CH ₃ | | Cl F F |
| A.1.438 | — n/ | CH ₃ | | CI F F |
| A.1.439 | —- N | CH ₃ | | CI F F |
| A.1.440 | _v | $-N$ CH_3 CH_2 | | CI F F |
| A.1.441 | — N | \sqrt{N} | | Cl F F |
| A.1.442 | — N | N CH_3 | | CI F F |
| A.1.443 | _ | N | | CI F F |

TABLE A-continued

| IABLE A-continued | | |
|-------------------|---|--|
| | Meanings for R ₁ , I | R ₂ , R ₅ and R ₆ : |
| A.1.444 | N N CH3 | CI |
| A.1.445 | $-N$ CH_3 CH_3 CH_3 | F F CI |
| A.1.446 | \sim N CH ₃ CH ₃ | CI F |
| A.1.447 | $-N$ N CH_3 CH_3 | F F |
| A.1.448 | $-N$ CH_3 ECH | F F |
| A.1.449 | CH_3 H_3C H | F F CI F F F |
| A.1.450 | CH ₃ CH ₃ CH ₃ | CI F F |
| A.1.451 | $-N$ CH_3 CH_3 | CI F F |
| A.1.452 | | CI F F |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | | |
|---|--|-------|--|
| A.1.453 | | | |
| | $_{\mathrm{CH_{3}}}$ | CI F | |
| A.1.454 | | F F | |
| A.1.455 | | F F | |
| A.1.456 | | F F | |
| A.1.457 | | CI F | |
| A.1.458 | $-N$ H_3C | CI F | |
| A.1.459 | $-N$ H_3C | F F | |
| A.1.460 | $-N$ CH_3 | F F | |
| A.1.461 | \sim N CH ₃ CH ₃ | F F F | |

TABLE A-continued

| TABLE A-continued | | | |
|--|--|--|--|
| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | | |
| A.1.462 | $-N$ NH_2 | CI | |
| | | $F \longrightarrow F$ | |
| A.1.463 | $-N$ H CH_3 | CI | |
| A.1.464 | — N. | F F | |
| | H_{N} | CI F | |
| A.1.465 | — N, | F | |
| | H | CI F | |
| A.1.466 | $-N$ CH_3 CH_3 | F F | |
| A.1.467 | CH ₃ | $F \longrightarrow F$ | |
| A.1.40/ | $-N$ CH_3 | CI———————————————————————————————————— | |
| A.1.468 | —N_H_N | F | |
| | \sim CH ₃ | Cl F F | |
| A.1.469 | N | CI | |
| | $\stackrel{\textstyle \smile}{}$ N $_{\rm CH_3}$ | F F | |
| A.1.470 | | CI | |
| | CH ₃ | $F \xrightarrow{F} F$ | |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--|
| A.1.471 | O S CH ₃ | CI F |
| A.1.472 | -N | F F |
| A.1.473 | ON N+-O- CH3 | F F |
| A.1.474 | CH ₃ | F F |
| A.1.475 | \sim N \sim CH ₃ \sim CH ₃ | F F H ₃ C H H ₃ C |
| A.1.476 | \sim N \sim CH ₃ \sim CH ₃ | H ₃ C H ₃ C |
| A.1.477 | -N_CH ₃ | H ₃ C H H ₃ C |
| A.1.478 | CH ₂ | $H_{3}C$ $H_{3}C$ |
| A.1.479 | | $H_{3}C$ $H_{3}C$ |
| A.1.480 | -N O | H_3C H_3C |
| A.1.481 | -N | $H_{3}C$ $H_{3}C$ |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|---|
| A.1.482 | —N_N_CH ₃ | H ₃ C H ₃ C |
| A.1.483 | \sim N CH ₃ CH ₃ | H ₃ C H H ₃ C |
| A.1.484 | \sim N CH ₃ CH ₃ | H_{3C} H_{3C} |
| A.1.485 | $-N$ N CH_3 CH_3 | H_{3C} H_{3C} |
| A.1.486 | $-N$ CH_3 CH | H_{3C} H_{3C} |
| A.1.487 | \sim N CH ₃ \sim CH ₃ \sim CH | H ₃ C H ₃ C |
| A.1.488 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ \sim CH ₃ | H_3C H_3C |
| A.1.489 | $-N$ CH_3 | H_3C H_3C |
| A.1.490 | | H ₃ C H ₃ C |
| A.1.491 | N CH_3 | H ₃ C H ₃ C |
| A.1.492 | | H_{3C} H_{3C} |
| A.1.493 | | H ₃ C H H ₃ C |

TABLE A-continued

| TABLE A-continued | | |
|--|--|--------------------------------------|
| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
| A.1.494 | | H_{3C} H_{3C} |
| A.1.495 | N | H ₃ C H ₃ C |
| A.1.496 | N H_3C | H_3C H_3C |
| A.1.497 | $-N$ H_3C | $H_{3}C$ $H_{3}C$ |
| A.1.498 | N CH_3 | H_3C H_3C |
| A.1.499 | $-N$ CH_3 CH_3 | H_3C H_3C |
| A.1.500 | $-$ N $_{ m NH_2}$ | H ₃ C H ₃ C |
| A.1.501 | $-N$ H CH_3 | H_3C H_3C |
| A.1.502 | $-N$ H CH_3 | $H_{3}C$ $H_{3}C$ |
| A.1.503 | | H_3C H_3C |
| A.1.504 | $\begin{array}{c} \begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \end{array} \end{array}$ | H_3C H_3C |
| A.1.505 | $-N$ CH_2 CH_3 | H_3C H_3C |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|--|
| A.1.506 | $-N$ H N CH_3 | H ₃ C H ₃ C |
| A.1.507 | N N CH_3 | H_3C H_3C |
| A.1.508 | $-N$ N CH_3 | H_3C H_3C |
| A.1.509 | N N N N N N N N N N | H_3C H_3C |
| A.1.510 | $-N$ CH_2 CH_3 | H_3C H_3C |
| A.1.511 | N | $_{\mathrm{H_{3}C}}^{\mathrm{H_{3}C}}$ |
| A.1.512 | N CH ₃ | $H_{3}C$ $H_{3}C$ |
| A.1.513 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | CI———————————————————————————————————— |
| A.1.514 | N CH ₃ | CI———————————————————————————————————— |

| TABLE A-continued | | | |
|--|-----------------------------|---------------------------|--|
| Meanings for R_1 , R_2 , R_5 and R_6 : | | | |
| A.1.515 | —N_CH ₃ | CI F F | |
| A.1.516 | $-N$ CH_3 CH_3 CH_3 | CI | |
| A.1.517 | $-N$ CH_3 CH_3 CH_3 | CI | |
| A.1.518 | $-N$ CH_3 CH_3 CH_3 | $_{ m H_3C}$ $_{ m CH_3}$ | |
| A.1.519 | CH_3 CH_3 CH_3 CH_3 | F | |
| A.1.520 | $-N$ CH_3 CH_3 CH_3 | H_3C H_3C H_3C | |
| A.1.521 | $-N$ CH_3 CH_3 | | |
| A.1.522 | $-N$ CH_3 CH_3 | H_3C H_3C | |
| A.1.523 | $-N$ CH_3 CH_3 | | |
| A.1.524 | $-N$ CH_3 CH_3 | CH3-O | |
| A.1.525 | $-N$ O CH_3 | H_3C H_3C | |

TABLE A-continued

| | Meanings for R ₁ , R ₂ | ₂ , R ₅ and R ₆ : |
|---------|--|--|
| A.1.526 | $-N$ CH_3 CH_3 | H ₃ C H |
| A.1.527 | $-N$ CH_3 CH_3 | CH ₃ |
| A.1.528 | $-N$ CH_3 CH_3 | F |
| A.1.529 | CH ₃ | CI CH ₃ |
| A.1.530 | \sim N \sim CH ₃ \sim CH ₃ | Γ |
| A.1.531 | $-N$ CH_3 CH_3 | $H_{3}C$ |
| A.1.532 | $-N$ CH_3 CH_3 | CH_3 |
| A.1.533 | CH ₃ | CH_3 |
| A.1.534 | \sim N \sim CH ₃ \sim CH ₃ | |
| A.1.535 | $-N$ CH_3 CH_3 | H ₃ C |
| A.1.536 | $-N$ CH_3 CH_3 | H ₃ C |

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|---|------------------------------------|
| A.1.537 | —N, CH ₃ | H ₃ C |
| A.1.337 | N CH ₃ | H ₃ C |
| A.1.538 | $-N$ CH_3 CH_3 | H ₃ C |
| A.1.539 | $-N$ CH_3 CH_3 | H ₃ C |
| A.1.540 | $-N$ CH_3 CH_3 | $_{\mathrm{CH_2}}^{\mathrm{H_3C}}$ |
| A.1.541 | $-N$ CH_3 CH_3 | $_{\mathrm{H_3C}}$ |
| A.1.542 | $-N$ CH_3 CH_3 | F |
| A.1.543 | $-N$ CH_3 CH_3 | |
| A.1.544 | \sim N CH ₃ CH ₃ \sim CH ₃ | |
| A.1.545 | \sim N CH ₃ CCH \sim CCH | |
| A.1.546 | $-N$ CH_3 CH_3 | # |
| A.1.547 | N CH ₃ | # |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|---|
| A.1.548 | N CH ₃ CH ₃ | # |
| A.1.549 | CH ₃ | # |
| A.1.550 | CH ₃ | # |
| A.1.551 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.552 | CH ₃ | # |
| A.1.553 | $-N$ CH_3 CH_3 | # |
| A.1.554 | $-N$ CH_3 CH_3 | # |
| A.1.555 | CH ₃ | # |
| A.1.556 | CH ₃ | # |

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|--|---|
| A.1.557 | CH ₃ | # |
| A.1.558 | $-N$ CH_3 CH_3 | # |
| A.1.559 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.560 | N CH_3 CH_3 | # |
| A.1.561 | \sim N CH ₃ CH ₃ | # |
| A.1.562 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.563 | CH ₃ CH ₃ | # |
| A.1.564 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|---|------------------------------------|---|
| A.1.565 — N. CH ₃ | | |
| 71.1.505 | CH ₃ | # |
| A.1.566 | \sim N $_{ m CH_3}$ $_{ m CH_3}$ | # |
| A.1.567 | -N_CH ₃ | # |
| A.1.568 | CH ₃ | # |
| A.1.569 | CH ₃ | # |
| A.1.570 | CH ₃ | # |
| A.1.571 | N CH3 CH3 | # |
| A.1.572 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|---|--|---------|
| A.1.573 | N CH ₃ | # |
| A.1.574 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.575 | \sim N CH ₃ CH ₃ | Cl # |
| A.1.576 | \sim N CH ₃ CH ₃ | ## |
| A.1.577 | $-N$ CH_3 CH_3 | # C1 |
| A.1.578 | CH ₃ | # Cl |
| A.1.579 | N CH ₃ | # CI |
| A.1.580 | N CH ₃ | # Cl |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|-----------------------------------|--|
| A.1.581 | N CH ₃ | CI———————————————————————————————————— |
| A.1.582 | N CH ₃ CH ₃ | Cl # |
| A.1.583 | CH ₃ CCH ₃ | # Cl Cl |
| A.1.584 | CH ₃ | Cl # Cl |
| A.1.585 | CH ₃ | Cl # Cl |
| A.1.586 | $-N$ CH_3 CH_3 | # F |
| A.1.587 | CH ₃ | # F |
| A.1.588 | CH ₃ | # F |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|---|--|---------|
| A.1.589 | CH ₃ | # F |
| A.1.590 | $-N$ CH_3 CH_3 | F # F |
| A.1.591 | \sim N CH ₃ CH ₃ | F # |
| A.1.592 | CH ₃ | # F |
| A.1.593 | CH ₃ | # F |
| A.1.594 | CH ₃ | # F |
| A.1.595 | $-N$ CH_3 CH_3 | # Br |
| A.1.596 | $-N$ CH_3 CH_3 | # |
| A.1.597 | $-N$ CH_3 CH_3 | # N |
| A.1.598 | $-N$ CH_3 CH_3 | # |

| Meanings for R_1, R_2, R_5 and R_6 : | | |
|--|--|--|
| A.1.599 | CH ₃ | # Br |
| A.1.600 | N CH ₃ | # |
| A.1.601 | $-N$ CH_3 CH_3 | # N |
| A.1.602 | CH ₃ | # |
| A.1.603 | $-N$ CH_3 CH_3 | # F |
| A.1.604 | $-N$ CH_3 CH_3 | # F |
| A.1.605 | N CH ₃ CH ₃ | # F———————————————————————————————————— |
| A.1.606 | \sim N CH ₃ CH ₃ | F # |

TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|--|----------|
| A.1.607 | CH ₃ | # F F |
| A.1.608 | \sim N \sim CH ₃ \sim CH ₃ | F # F |
| A.1.609 | $-N$ CH_3 CH_3 | F # |
| A.1.610 | CH ₃ CH ₃ CH ₃ | F—# |
| A.1.611 | CH ₃ | #F |
| A.1.612 | CH ₃ | # Cl |
| A.1.613 | $-N$ CH_3 CH_3 | CI—# |
| A.1.614 | N CH ₃ | CI—# |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|---------|
| A.1.615 | N CH ₃ CH ₃ | CI—# |
| A.1.616 | \sim N CH ₃ CH ₃ | # CI |
| A.1.617 | $-N$ CH_3 CH_3 | #CI |
| A.1.618 | CH ₃ | # F |
| A.1.619 | CH ₃ | # F |
| A.1.620 | CH ₃ | # F |
| A.1.621 | CH ₃ | # F |
| A.1.622 | CH ₃ | # Br |

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| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--|
| A.1.623 | CH ₃ # | |
| A.1.624 | \sim N \sim CH ₃ \ll N \sim CH ₃ | |
| A.1.625 | CH ₃ CH ₃ | |
| A.1.626 | CH ₃ # | |
| A.1.627 | CH ₃ # | |
| A.1.628 | CH ₃ # | |
| A.1.629 | —N_CH ₃ # | |
| A.1.630 | —N_CH ₃ # | |

| Meanings for R_1, R_2, R_5 and R_6 : | | |
|--|--|-----------------------|
| A.1.631 | CH ₃ | # |
| A.1.632 | $-N$ CH_3 CH_3 | # |
| A.1.633 | $-N$ CH_3 CH_3 | # |
| A.1.634 | \sim N CH ₃ CH ₃ | $H_{2}N$ |
| A.1.635 | CH ₃ | # H ₂ N |
| A.1.636 | \sim N CH ₃ CH ₃ | #O HN |
| A.1.637 | \sim N CH ₃ CH ₃ | # O N |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--------------------|---------|
| A.1.638 | CH ₃ | *** |
| A.1.639 | $-N$ CH_3 CH_3 | # |
| A.1.640 | CH ₃ | # CI |
| A.1.641 | N CH ₃ | # CI |
| A.1.642 | CH ₃ | # Cl |
| A.1.643 | $-N$ CH_3 CH_3 | # |
| A.1.644 | $-N$ CH_3 CH_3 | # |
| A.1.645 | $-N$ CH_3 CH_3 | # |
| A.1.646 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|---|
| A.1.647 | $-N$ CH_3 CH_3 | # |
| A.1.648 | $-N$ CH_3 CH_3 | # |
| A.1.649 | $-N$ CH_3 CH_3 | , ———————————————————————————————————— |
| A.1.650 | N CH ₃ CH ₃ | # |
| A.1.651 | CH ₃ | # |
| A.1.652 | $-N$ CH_3 CH_3 | # |
| A.1.653 | $-N$ CH_3 CH_3 | # |
| A.1.654 | $-N$ CH_3 CH_3 | Cl # |
| A.1.655 | CH ₃ | C1 # |
| A.1.656 | \sim N CH ₃ CH ₃ | CI—# |
| A.1.657 | $-N$ CH_3 CH_3 | CI—# |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--------------------|--------|
| A.1.658 | $-N$ CH_3 CH_3 | 0 |
| A.1.659 | $-N$ CH_3 CH_3 | |
| A .1.660 | $-N$ CH_3 CH_3 | \# |
| A.1.661 | N CH ₃ | # F |
| A.1.662 | $-N$ CH_3 CH_3 | # |
| A.1.663 | $-N$ CH_3 CH_3 | F—# |
| A.1.664 | CH ₃ | F F |
| A.1.665 | $-N$ CH_3 CH_3 | CI # |
| A.1.666 | $-N$ CH_3 CH_3 | CI # |
| A.1.667 | $-N$ CH_3 CH_3 | N # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|-----|
| A.1.668 | —N, CH ₃ | /= |
| | N CH_3 | N== |
| A.1.669 | \sim N CH ₃ CCH ₃ | # |
| A.1.670 | $-$ N $_{\rm CH_3}$ | # |
| A.1.671 | $-N$ CH_3 CH_3 | # |
| A.1.672 | $-N$ CH_3 CH_3 | # |
| A.1.673 | $-N$ CH_3 CH_3 | # |
| A.1.674 | $-$ N $_{ m CH_3}$ | # |
| A.1.675 | $-N$ CH_3 CH_3 | # |
| A.1.676 | CH ₃ | # |
| A.1.677 | CH ₃ | # |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|------|
| A.1.678 | \sim N CH ₃ \sim CH ₃ | # |
| A.1.679 | $-N$ CH_3 CH_3 | F # |
| A.1.680 | $-N$ CH_3 CH_3 | F' # |
| A.1.681 | $-N$ CH_3 CH_3 | # |
| A.1.682 | $-N$ CH_3 CH_3 | N # |
| A.1.683 | $-N$ CH_3 CH_3 | cí |
| A.1.684 | $-N$ CH_3 CH_3 | # |
| A.1.685 | $-N$ CH_3 CH_3 | # |
| A.1.686 | $-N$ CH_3 CH_3 | CI—# |
| A.1.687 | \sim N \sim CH ₃ \sim CH ₃ | F—# |

TABLE A-continued

| TABLET CONTROL | | |
|----------------|---|---|
| | | R ₁ , R ₂ , R ₅ and R ₆ : |
| A.1.688 | $-N$ CH_3 CH_3 | N= |
| A.1.689 | $-$ N $_{\rm CH_3}$ | # |
| A.1.690 | $-N$ CH_3 CH_3 | # F |
| A.1.691 | \sim N CH ₃ \sim CH ₃ | —————————————————————————————————————— |
| A.1.692 | $-N$ CH_3 CH_3 | # |
| A.1.693 | $-N$ CH_3 CH_3 | # |
| A.1.694 | $-N$ CH_3 CH_3 | F # |
| A.1.695 | $-N$ CH_3 CH_3 | F# |
| A.1.696 | $-N$ CH_3 CH_3 | F # |
| A.1.697 | $-N$ CH_3 CH_3 | $\bigvee_{\mathrm{F}}^{\#}$ |
| A.1.698 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| | Meanings for R_1 , | R ₂ , R ₅ and R ₆ : |
|---------|--|--|
| A.1.699 | $-N$ CH_3 CH_3 | |
| A.1.700 | $-N$ CH_3 CH_3 | |
| A.1.701 | \sim N CH ₃ CH ₃ | # |
| A.1.702 | $-N$ CH_3 CH_3 | Cl # |
| A.1.703 | $-N$ CH_3 CH_3 | Cl # |
| A.1.704 | $-N$ CH_3 CH_3 | CI # |
| A.1.705 | $-N$ CH_3 CH_3 | # |
| A.1.706 | \sim N CH ₃ CH ₃ | Br # |
| A.1.707 | $-N$ CH_3 CH_3 | # |
| A.1.708 | CH ₃ | # |
| A.1.709 | $-N$ CH_3 CH_3 | O # |
| A.1.710 | \sim N CH ₃ CH ₃ | HO # |

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| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|---------|
| A.1.711 | CH ₃ | # |
| A.1.712 | $-N$ CH_3 CH_3 | ÖH CI # |
| A.1.713 | $-N$ CH_3 CH_3 | CI # |
| A.1.714 | $-N$ CH_3 CH_3 | CI # |
| A.1.715 | CH ₃ | # |
| A.1.716 | \sim N CH ₃ CH ₃ | F # |
| A.1.717 | $-N$ CH_3 CH_3 | F # |
| A.1.718 | $-N$ CH_3 CH_3 | F # |
| A.1.719 | \sim N CH ₃ \sim CH ₃ | # F |
| A.1.720 | $-N$ CH_3 CH_3 | # |
| A.1.721 | $-N$ CH_3 CH_3 | # |

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|--------------------|------|
| | | |
| A.1.723 | $-N$ CH_3 CH_3 | # |
| A.1.724 | $-N$ CH_3 CH_3 | Br# |
| A.1.725 | $-N$ CH_3 CH_3 | N # |
| A.1.726 | CH ₃ | N # |
| A.1.727 | N CH ₃ | Br # |
| A.1.728 | CH ₃ | Cl # |
| A.1.729 | $-N$ CH_3 CH_3 | # |
| A.1.730 | $-N$ CH_3 CH_3 | # |
| A.1.731 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|---|
| A.1.732 | CH ₃ | # |
| A.1.733 | CH ₃ | # |
| A.1.734 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.735 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.736 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.737 | N CH ₃ | # |
| A.1.738 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.739 | N CH ₃ | # |
| A.1.740 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--|
| A.1.741 | | K ₂ , K ₅ and K ₆ . |
| A.1./41 | N CH3 | # |
| A.1.742 | N CH3 CH3 | # |
| A.1.743 | $-N$ CH_3 CH_3 | # |
| A.1.744 | NCH ₃ | # |
| A.1.745 | $-N$ CH_3 CH_3 | # |
| A.1.746 | \sim N CH ₃ CH ₃ | # |
| A.1.747 | $-N$ CH_3 CH_3 | # |
| A.1.748 | $-N$ CH_3 CH_3 | O——# |
| A.1.749 | CH ₃ | # |
| A.1.750 | CH ₃ | # |
| A.1.751 | CH ₃ | , o — () — # |
| A.1.752 | CH ₃ | # |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|-------------------------------------|------------|
| A.1.753 | $-N$ CH_3 CH_3 | ,0 |
| A.1.754 | ─N CH ₃ CCH ₃ | , O———# |
| A.1.755 | -N_CH ₃ | N# |
| A.1.756 | $-N$ CH_3 CH_3 | # N |
| A.1.757 | —N_CH ₃ | # |
| A.1.758 | $-N$ CH_3 CH_3 | N==-# |
| A.1.759 | $-N$ CH_3 CH_3 | CI # |
| A.1.760 | $-N$ CH_3 CH_3 | F # |
| A.1.761 | $-N$ CH_3 CH_3 | C1——# |
| A.1.762 | $-N$ CH_3 CH_3 | F—# |
| A.1.763 | $-N$ CH_3 CH_3 | # F |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--------------------|--------|
| A.1.764 | CH ₃ | # F |
| A.1.765 | $-N$ CH_3 CH_3 | # |
| A.1.766 | $-N$ CH_3 CH_3 | # |
| A.1.767 | $-N$ CH_3 CH_3 | # |
| A.1.768 | $-N$ CH_3 CH_3 | # |
| A.1.769 | $-N$ CH_3 CH_3 | # |
| A.1.770 | N CH ₃ | # |
| A.1.771 | CH ₃ | # |
| A.1.772 | $-N$ CH_3 CH_3 | F # |
| A.1.773 | $-N$ CH_3 CH_3 | CI # |
| A.1.774 | $-N$ CH_3 CH_3 | 0 # |
| A.1.775 | $-N$ CH_3 CH_3 | S # |
| A.1.776 | $-N$ CH_3 CH_3 | O=S-# |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--------------------|--------------------------------|
| A.1.777 | CH ₃ | O S # |
| A.1.778 | $-N$ CH_3 CH_3 | HN# |
| A.1.779 | $-N$ CH_3 CH_3 | # |
| A.1.780 | $-N$ CH_3 CH_3 | # |
| A.1.781 | $-N$ CH_3 CH_3 | O# |
| A.1.782 | $-N$ CH_3 CH_3 | 0 = S - N = # |
| A.1.783 | $-N$ CH_3 CH_3 | O S N # |
| A.1.784 | $-N$ CH_3 CH_3 | 0=S-N-# |
| A.1.785 | $-N$ CH_3 CH_3 | |
| A.1.786 | $-N$ CH_3 CH_3 | $\bigvee_{N} - \bigvee_{N} \#$ |
| A.1.787 | $-N$ CH_3 CH_3 | 0—# |
| A.1.788 | $-N$ CH_3 CH_3 | # |

| | Meanings for R ₁ | , R ₂ , R ₅ and R ₆ : |
|---------|-----------------------------|--|
| A.1.789 | N CH ₃ | O==# |
| A.1.790 | $-N$ CH_3 CH_3 | O===# |
| A.1.791 | $-N$ CH_3 CH_3 | O===## |
| A.1.792 | $-N$ CH_3 CH_3 | НО——# |
| A.1.793 | $-N$ CH_3 CH_3 | s===################################## |
| A.1.794 | $-N$ CH_3 CH_3 | O_# |
| A.1.795 | $-N$ CH_3 CH_3 | # |
| A.1.796 | $-N$ CH_3 CH_3 | S S |
| A.1.797 | $-N$ CH_3 CH_3 | S # |
| A.1.798 | $-N$ CH_3 CH_3 | |
| A.1.799 | $-N$ CH_3 CH_3 | |
| A.1.800 | CH ₃ | O_N=# |

TABLE A-continued

| | Meanings for R ₁ | . Ro Roand Ro |
|---------|-----------------------------|-------------------|
| A.1.801 | CH ₃ | N = # |
| A.1.802 | $-N$ CH_3 CH_3 | O _N =# |
| A.1.803 | $-N$ CH_3 CH_3 | |
| A.1.804 | CH ₃ | N===## |
| A.1.805 | N CH ₃ | # |
| A.1.806 | NCH ₃ | Cl—# |
| A.1.807 | $-N$ CH_3 CH_3 | F——# |
| A.1.808 | $-N$ CH_3 CH_3 | # |
| A.1.809 | $-N$ CH_3 CH_3 | # C1 |
| A.1.810 | $-N$ CH_3 CH_3 | # CI |
| A.1.811 | $-N$ CH_3 CH_3 | # |
| A.1.812 | CH ₃ | # |

TABLE A-continued

| | Meanings for R ₁ , R ₂ | |
|---------|--|---|
| A.1.813 | NCH ₃ | # |
| A.1.814 | $-N$ CH_3 CH_3 | # |
| A.1.815 | $-N$ CH_3 CH_3 | # |
| A.1.816 | $-N$ CH_3 CH_3 | # |
| A.1.817 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.818 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.819 | $-N$ CH_3 CH_3 | # |
| A.1.820 | $-N$ CH_3 CH_3 | # |
| A.1.821 | $-N$ CH_3 CH_3 | # |
| A.1.822 | $-N$ CH_3 CH_3 | # |
| A.1.823 | $-N$ CH_3 CH_3 | # |

| | Meanings for R ₁ , R | ₂ , R ₅ and R ₆ : |
|---------|--|--|
| A.1.824 | $-N$ CH_3 CH_3 | # |
| A.1.825 | $-N$ CH_3 CH_3 | # |
| A.1.826 | $-N$ CH_3 CH_3 | |
| A.1.827 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.828 | $-N$ CH_3 CH_3 | # |
| A.1.829 | CH ₃ | # |
| A.1.830 | $-N$ CH_3 CH_3 | · # |
| A.1.831 | $-N$ CH_3 CH_3 | O # |
| A.1.832 | $-N$ CH_3 CH_3 | # |
| A.1.833 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|---|
| A.1.834 | | *************************************** |
| A.1.835 | $-N$ CH_3 CH_3 | # |
| A.1.836 | $-N$ CH_3 CH_3 | s *** |
| A.1.837 | $-$ N $_{\rm CH_3}$ | s# |
| A.1.838 | $-N$ CH_3 CH_3 | # |
| A.1.839 | $-N$ CH_3 CH_3 | # S |
| A.1.840 | $-N$ CH_3 CH_3 | # # W |
| A.1.841 | $-N$ CH_3 CH_3 | 0 # |
| A.1.842 | \sim N \sim CH ₃ \sim CH ₃ | 0 # N |
| A.1.843 | $-N$ CH_3 CH_3 | # O N |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--------|
| A.1.844 | CH ₃ | # N |
| A.1.845 | $-N$ CH_3 CH_3 | S # |
| A.1.846 | \sim N CH ₃ CH ₃ | S N |
| A.1.847 | CH ₃ CH ₃ | S N |
| A.1.848 | CH ₃ CH ₃ | S # |
| A.1.849 | CH ₃ | S # |
| A.1.850 | $-N$ CH_3 CH_3 | S # |
| A.1.851 | $-N$ CH_3 CH_3 | S # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|-----------------------------------|--------|
| A.1.852 | N CH ₃ CH ₃ | S N |
| A.1.853 | $-N$ CH_3 CH_3 | S N |
| A.1.854 | CH ₃ | S N |
| A.1.855 | CH ₃ | S Cl |
| A.1.856 | $-N$ CH_3 CH_3 | S CI |
| A.1.857 | $-N$ CH_3 CH_3 | S Br |
| A.1.858 | $-N$ CH_3 CH_3 | Br |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|--|
| A.1.859 | CH ₃ | # N |
| A.1.860 | \sim N CH ₃ CH ₃ | # S N |
| A.1.861 | CH ₃ | # CI |
| A.1.862 | N CH ₃ CH ₃ | # N Cl |
| A.1.863 | \sim N CH ₃ CH ₃ | # O |
| A.1.864 | N CH ₃ CH ₃ | # O |
| A.1.865 | $-N$ CH_3 CH_3 | # N==================================== |

| Meanings for R_1, R_2, R_5 and R_6 : | | |
|--|---------------------------------|-------------|
| A.1.866 | $-N$ CH_3 CH_3 | # N== |
| A.1.867 | $-N$ CH_3 CH_3 | # N== |
| A.1.868 | CH ₃ CH ₃ | # N = \(\) |
| A.1.869 | $-N$ CH_3 CH_3 | "N# |
| A.1.870 | $-N$ CH_3 CH_3 | ,N# |
| A.1.871 | CH ₃ | # N |
| A.1.872 | CH ₃ | # N |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|------|
| A.1.873 | N CH ₃ | # |
| A.1.874 | | # |
| A.1.875 | \sim N CH ₃ CH ₃ CH ₃ | # |
| A.1.876 | CH ₃ | # |
| A.1.877 | \sim N CH ₃ CH ₃ CH ₃ | # |
| A.1.878 | $-$ N $_{\rm CH_3}$ | # |
| A.1.879 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.880 | N CH ₃ CH ₃ | F——# |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|------|
| A.1.881 | CH ₃ | F—# |
| A.1.882 | \sim CH ₃ \sim CH ₃ | F—# |
| A.1.883 | | F——# |
| A.1.884 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | F——# |
| A.1.885 | | F—# |
| A.1.886 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | F——# |
| A.1.887 | | F——# |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|------|
| A.1.888 | CH_3 CH_3 CH_3 CH_3 | F——# |
| A.1.889 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | CI—# |
| A.1.890 | CH ₃ | CI—# |
| A.1.891 | | CI # |
| A.1.892 | $-N$ CH_3 CH_3 | CI # |
| A.1.893 | CH_3 CH_3 CH_3 CH_3 | CI—# |
| A.1.894 | CH ₃ CH ₃ | CI—# |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|------|
| A.1.895 | CH_3 CH_3 CH_3 CH_3 | CI # |
| A.1.896 | CH_3 CH_3 CH_3 CH_3 | # |
| A.1.897 | | # |
| A.1.898 | \sim CH ₃ \sim CH ₃ | # |
| A.1.899 | N CH ₃ CH ₃ | # |
| A.1.900 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.901 | N CH ₃ CH ₃ | # |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|-----------------------------|---|
| A.1.902 | CH_3 CH_3 CH_3 CH_3 | # |
| A.1.903 | $-N$ CH_3 CH_3 CH_3 | # |
| A.1.904 | | # |
| A.1.905 | $-N$ CH_3 CH_3 | # |
| A.1.906 | CH_3 CH_3 CH_3 CH_3 | # |
| A.1.907 | | # |
| A.1.908 | $-N$ CH_3 CH_3 | # |
| A.1.909 | $-N$ CH_3 CH_3 | # |
| A.1.910 | | # |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|---|---|
| A.1.911 | CH_3 CH_3 CH_3 CH_3 | # |
| A.1.912 | \sim N CH ₃ \sim CH ₃ | # |
| A.1.913 | | # |
| A.1.914 | CH_3 CH_3 CH_3 CH_3 | # |
| A.1.915 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.916 | | # |
| A.1.917 | CH_3 CH_3 CH_3 | # |
| A.1.918 | | # |
| A.1.919 | $-N$ CH_3 CH_3 | # |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|---|
| A.1.920 | CH ₃ | # |
| A.1.921 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.922 | | # |
| A.1.923 | $-N$ CH_3 CH_3 | # |
| A.1.924 | CH_3 CH_3 CH_3 | # |
| A.1.925 | | # |
| A.1.926 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.927 | | # |
| A.1.928 | $-N$ CH_3 CH_3 | # |
| A.1.929 | | # |

TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|---|---|
| A.1.930 | \sim CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.931 | NCH ₃ | # |
| A.1.932 | | # |
| A.1.933 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.934 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.935 | | # |
| A.1.936 | $-N$ CH_3 CH_3 | # |
| A.1.937 | -N | # |
| A.1.938 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.939 | $-N$ CH_3 CH_3 | |
| A.1.940 | | |
| A.1.941 | \sim | |

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|--|
| A.1.942 | N | # |
| A.1.943 | $-N$ CH_3 CH_3 | # |
| A.1.944 | H ₃ C′ CH ₃ | # |
| A.1.945 | $-N$ CH_3 CH_3 | # |
| A.1.946 | | # |
| A.1.947 | \sim | # |
| A.1.948 | N CH ₃ | # |
| A.1.949 | | ··································////// |
| A.1.950 | \sim N CH ₃ CH ₃ \sim CH ₃ | |
| A.1.951 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.952 | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| A.1.953 | \sim CH ₃ | —————————————————————————————————————— |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|---|--|
| A.1.954 | -N_CH ₃ | ·········# |
| A.1.955 | | ······································ |
| A.1.956 | \sim N \sim CH ₃ \sim CH ₃ \sim CH ₃ | O — # |
| A.1.957 | $-N$ CH_3 CH_3 | Onn# |
| A.1.958 | | Ошо- |
| A.1.959 | $-N$ CH_3 CH_3 CH_3 | Onn# |
| A.1.960 | $-N$ CH_3 CH_3 CH_3 | # |
| A.1.961 | $-N$ CH_3 CH_3 | O # |
| A.1.962 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.963 | $-N$ CH_3 CH_3 | Они# |
| A.1.964 | \sim N CH ₃ CH ₃ \sim CH ₃ | Onn# |

TABLE A-continued

| Manipus for P. P. and P. | | |
|--|--|--|
| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
| A.1.965 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.966 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.967 | $-N$ CH_3 CH_3 | # |
| A.1.968 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.969 | \sim N CH ₃ CH ₃ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| A.1.970 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.971 | $-N$ CH_3 CH_3 | ········# |
| A.1.972 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | |
| A.1.973 | \sim N CH ₃ CH ₃ \sim CH ₃ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| A.1.974 | \sim N CH ₃ CH ₃ \sim CH ₃ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| A.1.975 | | # |

| - INDEEN Conditated | | |
|---------------------|--|--|
| | Meanings for R ₁ , R | 2, R ₅ and R ₆ : |
| A.1.976 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.977 | CH_3 CH_3 CH_3 | O # |
| A.1.978 | | O # |
| A.1.979 | $-N$ CH_3 CH_3 | ************************************** |
| A.1.980 | $-N$ CH_3 CH_3 | # |
| A.1.981 | | # |
| A.1.982 | \sim N CH ₃ CH ₃ \sim CH ₃ | O ## |
| A.1.983 | $-N$ CH_3 CH_3 | ············ |
| A.1.984 | | ············ |
| A.1.985 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | O |
| A.1.986 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.987 | $-N$ CH_3 CH_3 | # |

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|---|--------|
| A.1.988 | \sim | # |
| A.1.989 | $-N$ CH_3 CH_3 | # |
| A.1.990 | CH_3 CH_3 H_3C | |
| A.1.991 | CH_3 CH_3 CH_3 CH_3 | S N |
| A.1.992 | CH ₃ | S # |
| A.1.993 | CH_3 CH_3 CH_3 | S H |
| A.1.994 | CH ₃ CH ₃ | S H |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|--|
| A.1.995 | CH_3 CH_3 CH_3 | s H |
| A.1.996 | \sim CH ₃ \sim CH ₃ \sim CH ₃ | ************************************** |
| A.1.997 | \sim N CH ₃ CH ₃ \sim CH ₃ | —# O N |
| A.1.998 | CH_3 CH_3 CH_3 | # O N |
| A.1.999 | \sim N \sim CH ₃ \sim CH ₃ | 0 # N |
| A.1.1000 | $-N$ CH_3 CH_3 | # O N |
| A.1.1001 | \sim | |
| A.1.1002 | CH_3 CH_3 CH_3 | s # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|---|--------|
| A.1.1003 | \sim N CH ₃ CH ₃ \sim CH ₃ | S # |
| A.1.1004 | \sim N CH ₃ CH ₃ \sim CH ₃ | # S |
| A.1.1005 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.1006 | CH ₃ | # S |
| A.1.1007 | \sim N CH ₃ CH ₃ \sim CH ₃ | # S |
| A.1.1008 | CH ₃ | s # |
| A.1.1009 | \sim N CH ₃ CH ₃ \sim CH ₃ | IIII |
| A.1.1010 | CH ₃ CH ₃ | s # |
| A.1.1011 | \sim N CH ₃ CH ₃ \sim CH ₃ | S # |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--|------|
| | | |
| A.1.1012 | CH ₃ | III# |
| A.1.1013 | \sim N CH ₃ CH ₃ \sim CH ₃ | S # |
| A.1.1014 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.1015 | | # |
| A.1.1016 | $-N$ CH_3 CH_3 | # |
| A.1.1017 | $-N$ CH_3 CH_3 | # |
| A.1.1018 | \sim N CH ₃ CH ₃ \sim CH ₃ | # |
| A.1.1019 | CH ₃ | # |
| A.1.1020 | \sim CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.1021 | \sim N CH ₃ CH ₃ \sim CH ₃ | # # |
| A.1.1022 | CH ₃ | # # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|-----|
| | | |
| A.1.1024 | \sim N CH ₃ CH ₃ | , |
| A.1.1025 | \sim N CH ₃ \sim CH ₃ \sim CH ₃ | # |
| A.1.1026 | CH ₃ | H—# |
| A.1.1027 | $-N$ CH_3 CH_3 | H—# |
| A.1.1028 | \sim CH ₃ \sim CH ₃ | H—# |
| A.1.1029 | \sim N CH ₃ CH ₃ \sim CH ₃ | Н—# |
| A.1.1030 | | Н—# |
| A.1.1031 | N CH ₃ | Н—# |
| A.1.1032 | N CH ₃ | H—# |
| A.1.1033 | \sim N CH ₃ CCH ₃ \sim CH | H—# |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--------------------|--|
| A.1.1034 | CH ₃ | # |
| A.1.1035 | CH ₃ | F # |
| A.1.1036 | $-N$ CH_3 CH_3 | # |
| A.1.1037 | CH ₃ | # N |
| A.1.1038 | CH ₃ | F F F |
| A.1.1039 | CH ₃ | # N==================================== |
| A.1.1040 | CH ₃ | |
| A.1.1041 | $-N$ CH_3 CH_3 | ,0 |
| A.1.1042 | $-N$ CH_3 CH_3 | Br—# |
| A.1.1043 | $-N$ CH_3 CH_3 | CI # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--------|
| | | |
| A.1.1044 | $-N$ CH_3 CH_3 | Br # |
| A.1.1045 | $-N$ CH_3 CH_3 | # |
| A.1.1046 | CH ₃ | # |
| A.1.1047 | N CH3 | # |
| A.1.1048 | CH ₃ | # |
| A.1.1049 | \sim N CH ₃ CH ₃ | F # |
| A.1.1050 | $-N$ CH_3 CH_3 | F F |
| A.1.1051 | N CH3 CH3 | # |
| A.1.1052 | $-N$ CH_3 CH_3 | # |
| A.1.1053 | $-N$ CH_3 CH_3 | # |
| A.1.1054 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| TABLETA CONTINUED | | |
|-------------------|-----------------------------------|--|
| | Meanings for R ₁ | , R ₂ , R ₅ and R ₆ : |
| A.1.1055 | $-N$ CH_3 | |
| | N | # |
| | CH ₃ | |
| A.1.1056 | $-N$ CH_3 | # |
| | \sim CH ₃ | |
| A 1 1057 | | |
| A.1.1057 | -N CH ₃ | |
| | \sim CH ₃ | ** |
| A.1.1058 | —— N, CH ₃ | 1 |
| | N | |
| | \searrow CH ₃ | <i>> * * * * *</i> |
| A.1.1059 | —— N ₂ CH ₃ | \ \ \ \ |
| | N | * |
| | \sim CH ₃ | ' |
| A .1.1060 | —N, СН3 | \ / |
| | | # |
| | \sim CH ₃ | |
| A.1.1061 | $-N$ CH_3 | * |
| | N, | |
| | ightharpoonupCH ₃ | |
| A.1.1062 | -N CH ₃ | # |
| | N, | F |
| | ightharpoonupCH ₃ | |
| A.1.1063 | $-N$ CH_3 | # |
| | CH ₃ | |
| 1.1064 | | |
| A.1.1064 | $-N$ CH_3 | |
| | \sim CH ₃ | # |
| | | F |
| A.1.1065 | -N CH ₃ | F F |
| | N, | |
| | ightharpoonupCH ₃ | * |
| A.1.1066 | —— N., CH ₃ | |
| A.1.1000 | | F # |
| | CH ₃ | r F |
| A.1.1067 | —N, CH ₃ | I |
| | N | F _v |
| | \searrow CH ₃ | F # |
| | | Ė |

TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|---------------------|--|
| | | |
| A.1.1069 | $-N$ CH_3 CH_3 | F # |
| A.1.1070 | $-N$ CH_3 CH_3 | $\bigvee_{F} \bigvee_{F}$ |
| A.1.1071 | $-N$ CH_3 CH_3 | F # |
| A.1.1072 | $-N$ CH_3 CH_3 | F F F |
| A.1.1073 | $-N$ CH_3 CH_3 | F F F |
| A.1.1074 | $-N$ CH_3 CH_3 | F # |
| A.1.1075 | $-N$ CH_3 CH_3 | # |
| A.1.1076 | $-$ N $_{\rm CH_3}$ | # |
| A.1.1077 | CH ₃ | $F \xrightarrow{F} F$ |
| A.1.1078 | $-N$ CH_3 CH_3 | $\begin{picture}(20,5) \put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){100$ |
| A .1.1079 | $-N$ CH_3 CH_3 | F # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--------------------|-------|
| A.1.1080 | N CH ₃ | F F |
| A.1.1081 | $-N$ CH_3 CH_3 | F F F |
| A.1.1082 | $-N$ CH_3 CH_3 | # |
| A.1.1083 | $-N$ CH_3 CH_3 | # |
| A.1.1084 | N CH ₃ | # |
| A.1.1085 | N CH ₃ | # |
| A.1.1086 | $-N$ CH_3 CH_3 | # |
| A.1.1087 | N CH ₃ | # |
| A.1.1088 | $-N$ CH_3 CH_3 | # |
| A.1.1089 | $-N$ CH_3 CH_3 | # |
| A.1.1090 | N CH ₃ | CI # |
| A.1.1091 | N CH ₃ | Cl # |
| A.1.1092 | $-N$ CH_3 CH_3 | # |

TABLE A-continued

| | Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|----------|--|----------------|--|
| | wicanings for K ₁ , | K2, K5 and K6. | |
| A.1.1093 | $-N$ CH_3 | # | |
| A.1.1094 | CH ₃ | F # | |
| A.1.1095 | CH ₃ | F # | |
| A.1.1096 | — NCH ₃ | F # | |
| A.1.1097 | $-N$ CH_3 | CI # | |
| A.1.1098 | — N CH ₃ | CI # | |
| A.1.1099 | CH ₃ | F # | |
| A.1.1100 | \sim N CH ₃ CH ₃ | F # | |
| A.1.1101 | $-N$ CH_3 CH_3 | # | |
| A.1.1102 | N CH ₃ | # | |
| A.1.1103 | $-N$ CH_3 CH_3 | # | |
| A.1.1104 | $-N$ CH_3 CH_3 | F F F | |
| A.1.1105 | $-N$ CH_3 CH_3 | F F F | |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|---------------------------------|--|
| A.1.1106 | N CH ₃ | |
| A.1.1107 | CH ₃ | # |
| A.1.1108 | — NCH ₃ | # |
| A.1.1109 | CH ₃ | # |
| A.1.1110 | N CH_3 CH_3 | $ \begin{array}{c} $ |
| A.1.1111 | $-N$ CH_3 | # |
| A.1.1112 | CH ₃ | # |
| A.1.1113 | CH ₃ CH ₃ | # |
| A.1.1114 | CH ₃ CH ₃ | <i>"</i> "# |
| A.1.1115 | CH ₃ | man,# |
| A.1.1116 | $-N$ CH_3 CH_3 | F F # |
| A.1.1117 | N CH ₃ | F F # |
| A.1.1118 | $-N$ CH_3 CH_3 | F F # |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|----------|
| A.1.1119 | NCH ₃ | F Inn. # |
| A.1.1120 | $-N$ CH_3 CH_3 | F June # |
| A.1.1121 | N CH ₃ CH ₃ | F F # |
| A.1.1122 | N CH ₃ CH ₃ | F F F |
| A.1.1123 | N CH ₃ CH ₃ | |
| A.1.1124 | $-N$ CH_3 CH_3 | |
| A.1.1125 | $-N$ CH_3 CH_3 | ~# |
| A.1.1126 | $-N$ CH_3 CH_3 | |
| A.1.1127 | $-N$ CH_3 CH_3 | |
| A.1.1128 | \sim N \sim CH ₃ \sim CH ₃ | # |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | | |
|---|--|----------------|--|
| A.1.1129 | N CH ₃ | | |
| A.1.1130 | $-N$ CH_3 CH_3 | # | |
| A.1.1131 | $-N$ CH_3 CH_3 | O H | |
| A.1.1132 | $-N$ CH_3 CH_3 | F _# | |
| A.1.1133 | $-N$ CH_3 CH_3 | F F $#$ | |
| A.1.1134 | $-N$ CH_3 CH_3 | — o | |
| A.1.1135 | $-N$ CH_3 CH_3 | 0 # | |
| A.1.1136 | $-N$ CH_3 CH_3 | 0 # | |
| A.1.1137 | CH ₃ | | |
| A.1.1138 | $-N$ CH_3 CH_3 | # | |
| A.1.1139 | \sim N CH ₃ CH ₃ | # | |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | | |
|--|---------------------|---|--|
| A.1.1140 | —N CH3 CH3 | # | |
| A.1.1141 | $-N$ CH_3 CH_3 | # | |
| A.1.1142 | $-N$ CH_3 CH_3 | # | |
| A.1.1143 | $-N$ CH_3 CH_3 | ······································ | |
| A.1.1144 | $-N$ CH_3 CH_3 | I | |
| A.1.1145 | $-N$ CH_3 CH_3 | min. | |
| A.1.1146 | $-N$ CH_3 CH_3 | # | |
| A.1.1147 | $-N$ CH_3 CH_3 | | |
| A.1.1148 | $-N$ CH_3 CH_3 | # | |
| A.1.1149 | $-$ N $_{\rm CH_3}$ | # | |
| A.1.1150 | $-N$ CH_3 CH_3 | ······································· | |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|---|---|
| A.1.1151 | N CH ₃ | |
| A.1.1152 | CH ₃ CH ₃ CH ₃ | # |
| A.1.1153 | $-N$ CH_3 CH_3 | # |
| A.1.1154 | $-N$ CH_3 CH_3 | # |
| A.1.1155 | $-N$ CH_3 CH_3 | F. |
| A.1.1156 | $-N$ CH_3 CH_3 | F F |
| A.1.1157 | $-N$ CH_3 CH_3 | F F |
| A.1.1158 | $-N$ CH_3 CH_3 | F F F |
| A.1.1159 | $-N$ CH_3 CH_3 | # # |
| A.1.1160 | $-$ N $_{ m CH_3}$ | , s , , , , , , , , , , , , , , , , , , |

TABLE A-continued

| Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|--|--|--|
| A.1.1161 | —N CH3 | 0 S |
| | \sim CH ₃ | |
| A.1.1162 | $-N$ CH_3 CH_3 | |
| A.1.1163 | $-N$ CH_3 CH_3 | , # |
| A.1.1164 | \sim N \sim CH ₃ \sim CH ₃ | 0 # |
| A.1.1165 | $-N$ CH_3 CH_3 | 0 # |
| A.1.1166 | $-N$ CH_3 CH_3 | ************************************** |
| A.1.1167 | $-N$ CH_3 CH_3 | |
| A.1.1168 | \sim N \sim CH ₃ \sim CH ₃ | $F \xrightarrow{F} \#$ |
| A.1.1169 | CH ₃ | 0# |
| A.1.1170 | $-N$ CH_3 CH_3 | 0# |
| A.1.1171 | CH ₃ | F # |
| A.1.1172 | CH ₃ | F # |

TABLE A-continued

| Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|--|--------------------|---|
| A.1.1173 | $-N$ CH_3 CH_3 | CI # |
| A.1.1174 | -N_CH ₃ | F # |
| A.1.1175 | $-N$ CH_3 CH_3 | F # |
| A.1.1176 | N CH ₃ | -s |
| A.1.1177 | -N_CH ₃ | |
| A.1.1178 | $-N$ CH_3 CH_3 | # |
| A.1.1179 | $-N$ CH_3 CH_3 | s |
| A.1.1180 | $-N$ CH_3 CH_3 | # |
| A.1.1181 | $-N$ CH_3 CH_3 | $ \begin{array}{c} F \\ F \\ \# \end{array} $ |

TABLE A-continued

| TABLE A-continued Meanings for R_1 , R_2 , R_5 and R_6 : | | |
|---|--|---|
| | | |
| A.1.1183 | CH ₃ | $\bigvee_{F}^{F} F$ |
| A.1.1184 | CH ₃ CH ₃ | F F F |
| A.1.1185 | $-N$ CH_3 CH_3 | $-\!$ |
| A.1.1186 | $-N$ CH_3 CH_3 | F # |
| A.1.1187 | \sim N \sim CH ₃ \sim CH ₃ | # |
| A.1.1188 | CH ₃ | O |
| A.1.1189 | CH ₃ CH ₃ | |
| A.1.1190 | \sim N \sim CH ₃ \sim CH ₃ | |

TABLE A-continued

| TABLE A-continued Meanings for R ₁ , R ₂ , R ₅ and R ₆ : | | |
|---|-----------------------------------|-----------|
| A.1.1191 | CH ₃ | |
| A.1.1192 | $-N$ CH_3 CH_3 | # |
| A.1.1193 | $-N$ CH_3 CH_3 | F F |
| A.1.1194 | N CH ₃ CH ₃ | F |
| A.1.1195 | N CH ₃ CH ₃ | CI |
| A.1.1196 | N CH ₃ CH ₃ | CI # |
| A.1.1197 | $-N$ CH_3 CH_3 | F F F |
| A.1.1198 | $-N$ CH_3 CH_3 | F # |
| A.1.1199 | CH ₃ | F # |

TABLE A-continued

| Meanings for R_1, R_2, R_5 and R_6 : | | | |
|--|--------------------|----|--|
| A.1.1200 | $-N$ CH_3 CH_3 | F# | |
| A.1.1201 | $-N$ CH_3 CH_3 | F# | |

The following tables T1 to T151 disclose preferred compounds of formula I for inclusion as component A in compositions of the invention.

TABLE 1

This table discloses the 1201 compounds T1.1.1 to T1.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 R_3
 R_4
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A. For example, the specific compound T1.1.13 is the compound of the formula T1, in which each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the line A.1.13 of Table A:

$$CI \xrightarrow{\qquad \qquad \qquad CH_3} N \xrightarrow{\qquad \qquad CH_3} N \xrightarrow{\qquad \qquad CH_3} CH_3$$

According to the same system, also all of the other 1201 50 specific compounds disclosed in the Table 1 as well as all of the specific compounds disclosed in the Tables 2 to T151 are specified analogously.

TABLE 2

This table discloses the 1201 compounds T2.1.1 to T2.1.1201 of the formula

$$R_5$$
 CH_3
 R_1
 CF_3
 R_6
 R_2 ,
 $CT2)$
 $CT2)$
 $CT3$
 $CT3$
 $CT4$
 $CT5$
 $CT5$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 3

This table discloses the 1201 compounds T3.1.1 to T3.1.1201 of the formula

$$\begin{array}{c} R_{5} \\ O \\ \\ B_{r} \end{array} \begin{array}{c} CH_{3} \\ \\ R_{6} \\ \\ R_{2}, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 4

This table discloses the 1201 compounds T4.1.1 to T4.1.1201 of the formula

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25

This table discloses the 1201 compounds T8.1.1 to T8.1.1201 of the formula

This table discloses the 1201 compounds T5.1.1 to T5.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 6

This table discloses the 1201 compounds T6.1.1 to T6.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \end{array} \begin{array}{c} N \\ \\ R_6 \end{array} \begin{array}{c} R_1 \\ \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 7

This table discloses the 1201 compounds T7.1.1 to T7.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_2
 R_3
 R_4
 R_5
 R_6
 R_2
 R_3
 R_4
 R_5
 R_6
 R_2
 R_3
 R_4
 R_5
 R_6
 R_6
 R_6
 R_6
 R_7
 R_8
 R_9
 R_9

in which, for each of these 1201 specific compounds, each of the variables $\rm R_1, \, R_2, \, R_5$ and $\rm R_6$ has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

 R_5 N R_1 N R_1

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 9

This table discloses the 1201 compounds T9.1.1 to T9.1.1201 of the formula

$$R_5$$
 N R_1 R_6 R_2 , R_7 R_8 R_8 R_9 R_9

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 10

This table discloses the 1201 compounds T10.1.1 to T10.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_1

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 11

This table discloses the 1201 compounds T11.1.1 to T11.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_3
 R_4
 R_4

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in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 12

This table discloses the 1201 compounds T12.1.1 to T12.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_1

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from $_{25}$ the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 13

This table discloses the 1201 compounds T13.1.1 to T13.1.1201 of the formula

$$\begin{array}{c} R_{5} \\ O \\ \hline \\ I \end{array} \begin{array}{c} CH_{3} \\ \hline \\ R_{6} \end{array} \begin{array}{c} R_{1} \\ R_{2}, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 14

This table discloses the 1201 compounds T14.1.1 to T14.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 CH_3CH_2
 R_6
 R_2 ,
 CH_3CH_3
 R_1
 R_2
 R_3
 R_4
 R_6
 R_2
 R_3

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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TABLE 15

This table discloses the 1201 compounds T15.1.1 to T15.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \\ CF_3 \end{array} \qquad \begin{array}{c} N \\ \\ R_6 \end{array} \qquad \begin{array}{c} R_1 \\ \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 16

This table discloses the 1201 compounds T16.1.1 to T16.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \hline \\ CF_3 \\ \hline \\ CF_3 \\ \hline \\ R_6 \\ \hline \\ R_2, \end{array}$$
 (T16)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 17

This table discloses the 1201 compounds T17.1.1 to T17.1.1201 of the

$$R_5$$
 N
 R_6
 R_2 ,
 N
 R_1
 R_2

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 18

This table discloses the 1201 compounds T18.1.1 to T18.1.1201 of the

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning

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given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 19

This table discloses the 1201 compounds T19.1.1 to T19.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_1

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 20

This table discloses the 1201 compounds T20.1.1 to T20.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 21

This table discloses the 1201 compounds T21.1.1 to T21.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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TABLE 22

This table discloses the 1201 compounds T22.1.1 to T22.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \\ B_T \end{array} \begin{array}{c} CH_3 \\ \\ C_1 \\ R_6 \end{array} \begin{array}{c} R_1 \\ \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 23

This table discloses the 1201 compounds T23.1.1 to T23.1.1201 of the formula

 $\begin{array}{c} R_5 \\ O \\ \\ \end{array} \begin{array}{c} N \\ \\ \end{array} \begin{array}{c} N \\ \\ \\ \end{array} \begin{array}{c} N \\ \\ \\ \end{array} \begin{array}{c} R_1 \\ \\ \\ \\ \end{array} \begin{array}{c} R_2, \end{array}$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 24

This table discloses the 1201 compounds T24.1.1 to T24.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \hline \\ Cl \\ \end{array} \begin{array}{c} N \\ \hline \\ CH_3 \\ R_6 \\ \end{array} \begin{array}{c} R_1 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 25

This table discloses the 1201 compounds T25.1.1 to T25.1.1201 of the formula

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TABLE 26

478 TABLE 30

This table discloses the 1201 compounds T30.1.1 to T30.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 31

This table discloses the 1201 compounds T31.1.1 to T31.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 32

This table discloses the 1201 compounds T32.1.1 to T32.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ CF_3 \end{array} \begin{array}{c} N \\ R_6 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

This table discloses the 1201 compounds T26.1.1 to T26.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from 15 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 27

This table discloses the 1201 compounds T27.1.1 to T27.1.1201 of the formula

in which, for each of these 1201 specific compounds, each $_{30}$ of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 28

This table discloses the 1201 compounds T28.1.1 to T28.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 CH_3
 R_6
 R_2 ,
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 29

This table discloses the 1201 compounds T29.1.1 to T29.1.1201 of the formula

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TABLE 33

This table discloses the 1201 compounds T33.1.1 to T33.1.1201 of the formula

(T33)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 34

This table discloses the 1201 compounds T34.1.1 to T34.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ R_6 \end{array}$$

$$\begin{array}{c} R_1 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 35

This table discloses the 1201 compounds T35.1.1 to T35.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \\ R_6 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

This table discloses the 1201 compounds T36.1.1 to T36.1.1201 of the formula

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TABLE 36

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from 20 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 37

This table discloses the 1201 compounds T37.1.1 to T37.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 38

This table discloses the 1201 compounds T38.1.1 to T38.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \\ R_6 \\ R_2, \end{array}$$

481 TABLE 39

482 TABLE 42

This table discloses the 1201 compounds T39.1.1 to T39.1.1201 of the formula

This table discloses the 1201 compounds T42.1.1 to T42.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 R_3
 R_4
 R_6
 R_2

(T42)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each given in the corresponding line, appropriately selected from 20 of the variables R1, R2, R5 and R6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 40

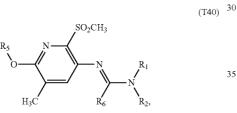
This table discloses the 1201 compounds

T40.1.1 to T40.1.1201 of the formula

TABLE 43

This table discloses the 1201 compounds T43.1.1 to T43.1.1201 of the formula

$$R_5$$
 N N N



(T43)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning $^{45}\,$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 41

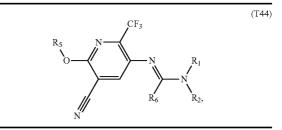
T41.1.1 to T41.1.1201 of the formula

This table discloses the 1201 compounds

TABLE 44

This table discloses the 1201 compounds T44.1.1 to T44.1.1201 of the formula

(T41) N(CH₃)₂ 55 60



in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 45

This table discloses the 1201 compounds

T45.1.1 to T45.1.1201 of the formula

484 TABLE 48

$$R_5$$
 N N R_1 R_2 , R_2

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning in which, for each of these 1201 specific compounds, each given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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(T45)

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TABLE 46

This table discloses the 1201 compounds T46.1.1 to T46.1.1201 of the formula

(T46)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from 45 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 47

| This table discloses the 1201 compounds T47.1.1 to T47.1.1201 of the formula | | 50 |
|---|-------|----|
| SCH ₃ | (T47) | |
| R_5 N | | 55 |
| <i>///</i> N | | 60 |

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

 $_{20}$ of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 49

This table discloses the 1201 compounds T49.1.1 to T49.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 50

This table discloses the 1201 compounds T50.1.1 to T50.1.1201 of the formula

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TABLE 51

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TABLE 54

This table discloses the 1201 compounds

T54.1.1 to T54.1.1201 of the formula

This table discloses the 1201 compounds T51.1.1 to T51.1.1201 of the formula

(T51)

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(T54)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning $_{20}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 52

This table discloses the 1201 compounds T52.1.1 to T52.1.1201 of the formula

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(T52)

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 R_5 N N R_1 CH_2CH_3 R_6 R_2

given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 55

in which, for each of these 1201 specific compounds, each

of the variables R₁, R₂, R₅ and R₆ has the specific meaning

This table discloses the 1201 compounds T55.1.1 to T55.1.1201 of the formula

(T55)

$$R_5$$
 N
 N
 R_1
 CH_2CH_3
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 53

This table discloses the 1201 compounds T53.1.1 to T53.1.1201 of the formula

 R_5 N R_1 R_6 R_2 , R_6 R_2 , R_6 R_6 R_8

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 56

This table discloses the 1201 compounds T56.1.1 to T56.1.1201 of the formula

(T56)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 57

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TABLE 60

This table discloses the 1201 compounds T57.1.1 to T57.1.1201 of the formula

This table discloses the 1201 compounds T60.1.1 to T60.1.1201 of the formula

(T60)

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in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 58

This table discloses the 1201 compounds T58.1.1 to T58.1.1201 of the formula TABLE 61

This table discloses the 1201 compounds T61.1.1 to T61.1.1201 of the formula

(T61)

$$\begin{array}{c} (T58) \\ 30 \\ \\ R_5 \\ \\ N \\ \\ R_6 \\ \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 62

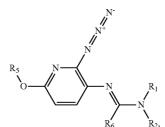
in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 59

This table discloses the 1201 compounds T59.1.1 to T59.1.1201 of the formula

This table discloses the 1201 compounds T62.1.1 to T62.1.1201 of the formula

(T62)



in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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TABLE 63

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TABLE 66

This table discloses the 1201 compounds T63.1.1 to T63.1.1201 of the formula

(T63)

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning $_{20}$ given in the corresponding line, appropriately selected from

This table discloses the 1201 compounds T66.1.1 to T66.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \end{array} \begin{array}{c} N \\ \end{array} \begin{array}{c} CF_2H \\ N \\ R_6 \end{array} \begin{array}{c} R_1 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 64

the 1201 lines A.1.1 to A.1.1201 of Table A.

This table discloses the 1201 compounds T64.1.1 to T64.1.1201 of the formula

(T64) ₃₀

in which, for each of these 1201 specific compounds, each 40 of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 65

This table discloses the 1201 compounds T65.1.1 to T65.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 67

This table discloses the 1201 compounds T67.1.1 to T67.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 68

This table discloses the 1201 compounds T68.1.1 to T68.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \hline \\ N \\ \hline \\ N \\ R_6 \\ R_2, \end{array}$$

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TABLE 69

492 9 TABLE 73

This table discloses the 1201 compounds T69.1.1 to T69.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning piven in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 70

This table discloses the 1201 compounds T70.1.1 to T70.1.1201 of the formula

$$\begin{array}{c} \text{SOCH}_3 \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{R}_6 \end{array} \begin{array}{c} \text{R}_1 \\ \text{R}_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 71

This table discloses the 1201 compounds T71.1.1 to T71.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $\rm R_1, R_2, R_5$ and $\rm R_6$ has the specific meaning given in the corresponding line, appropriately selected from $_{50}$ the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 72

This table discloses the 1201 compounds T72.1.1 to T72.1.1201 of the formula

$$R_5$$
 N
 N
 R_6
 R_7
 R_7
 R_7
 R_7

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

This table discloses the 1201 compounds T73.1.1 to T73.1.1201 of the formula

 $\begin{array}{c} R_5 \\ N \\ N \\ R_6 \end{array}$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 74

This table discloses the 1201 compounds T74.1.1 to T74.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from $_{45}$ the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 75

This table discloses the 1201 compounds T75.1.1 to T75.1.1201 of the formula

 $\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \\ R_6 \\ R_2, \end{array}$

25

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TABLE 76

This table discloses the 1201 compounds T76.1.1 to T76.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 77

This table discloses the 1201 compounds T77.1.1 to T77.1.1201 of the formula

$$\begin{array}{c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ &$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 78

This table discloses the 1201 compounds T78.1.1 to T78.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning 50 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 79

This table discloses the 1201 compounds T79.1.1 to T79.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning

494

given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 80

This table discloses the 1201 compounds T80.1.1 to T80.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 R_3
 N
 R_4
 R_5
 N
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 81

This table discloses the 1201 compounds T81.1.1 to T81.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 82

This table discloses the 1201 compounds T82.1.1 to T82.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \\ C_l \end{array} \begin{array}{c} N \\ \\ R_6 \end{array} \begin{array}{c} R_1 \\ \\ R_2, \end{array}$$

55

TABLE 83

This table discloses the 1201 compounds T83.1.1 to T83.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \\ N \\ R_6 \\ R_2, \end{array}$$
(T83)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 84

This table discloses the 1201 compounds T84.1.1 to T84.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2 ,
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from 35 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 85

This table discloses the 1201 compounds T85.1.1 to T85.1.1201 of the formula

$$R_5$$
 O
 N
 R_6
 R_7
 R_1
 R_6
 R_7
 R_7
 R_7

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 86

This table discloses the 1201 compounds T86.1.1 to T86.1.1201 of the formula

$$\begin{array}{c} \text{SCH}_3 \\ \text{N} \\ \text{O} \\ \text{Cl} \\ \\ \text{R}_6 \\ \\ \text{R}_2, \end{array} \tag{T86}$$

496

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 87

This table discloses the 1201 compounds T87.1.1 to T87.1.1201 of the

$$R_5$$
 N N R_1 N R_6 R_2 , R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 88

This table discloses the 1201 compounds T88.1.1 to T88.1.1201 of the formula

$$R_5$$
 N N R_1 R_6 R_2 , R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning diven in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 89

This table discloses the 1201 compounds T89.1.1 to T89.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 R_6
 R_2 ,
 R_2

TABLE 90

498 TABLE 93

This table discloses the 1201 compounds

(T93)

T93.1.1 to T93.1.1201 of the formula

This table discloses the 1201 compounds T90.1.1 to T90.1.1201 of the formula

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in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning 20given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 91

This table discloses the 1201 compounds T91.1.1 to T91.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 92

This table discloses the 1201 compounds T92.1.1 to T92.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 94

This table discloses the 1201 compounds T94.1.1 to T94.1.1201 of the formula

(T94)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 95

This table discloses the 1201 compounds T95.1.1 to T95.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_2 ,
 R_7
 R_8
 R_8
 R_9

(T96)

10

This table discloses the 1201 compounds T96.1.1 to T96.1.1201 of the formula

500 TABLE 99

This table discloses the 1201 compounds T99.1.1 to T99.1.1201 of the formula

$$\begin{array}{c} R_{5} \\ O \\ C_{1} \\ \end{array} \begin{array}{c} N(CH_{3})_{2} \\ N \\ R_{6} \\ R_{2}, \end{array}$$
 (T99)

in which, for each of these 1201 specific compounds, each 15 of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 97

This table discloses the 1201 compounds T97.1.1 to T97.1.1201 of the formula

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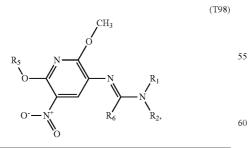
45

$$R_5$$
 N
 N
 R_1
 R_2

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 98

This table discloses the 1201compounds T98.1.1 to T98.1.1201 of the formula



in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 100

This table discloses the 1201 compounds T100.1.1 to T100.1.1201 of the formula

(T100)

$$\begin{array}{c} R_5 \\ O \\ \\ Br \end{array} \begin{array}{c} N(CH_3)_2 \\ \\ R_6 \\ \\ R_2, \end{array}$$
 (T100)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from 35 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 101

This table discloses the 1201 compounds T101.1.1 to T101.1.1201 of the formula

(T101)

$$\begin{array}{c} R_5 \\ O \\ Cl \end{array} \begin{array}{c} NH_2 \\ R_6 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 102

This table discloses the 1201 compounds T102.1.1 to T102.1.1201 of the formula

(T102)

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in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 103

This table discloses the 1201 compounds T103.1.1 to T103.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \\ N \\ R_6 \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 104

This table discloses the 1201 compounds T104.1.1 to T104.1.1201 of the formula

$$R_{5}$$
 CH_{3}
 R_{6}
 R_{2}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{4}
 CH_{5}
 CH_{5}
 CH_{5}
 CH_{7}
 CH_{7}
 CH_{8}

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning 45 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 105

This table discloses the 1201 compounds T105.1.1 to T105.1.1201 of the formula

$$R_5$$
 CH_3
 R_1
 CH_2CH_3
 R_6
 R_2 ,
 CH_2CH_3
 CH_3
 CH_3

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning 65 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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TABLE 106

This table discloses the 1201 compounds T106.1.1 to T106.1.1201 of the formula

(T106)

$$R_5$$
 N
 N
 R_1
 R_6
 R_2

in which, for each of these 1201 specific compounds, each 20 of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 107

This table discloses the 1201 compounds T107.1.1 to T107.1.1201 of the formula

(T107)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 108

This table discloses the 1201 compounds T108.1.1 to T108.1.1201 of the formula

(T108)

$$R_5$$
 N
 R_6
 R_2 ,
 R_1
 R_2

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(T109)

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TABLE 109

This table discloses the 1201 compounds

T109.1.1 to T109.1.1201 of the formula

504 TABLE 112

This table discloses the 1201 compounds

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 110

This table discloses the 1201 compounds T110.1.1 to T110.1.1201 of the formula

 CH_3 N R_1 CH_3

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 111

This table discloses the 1201 compounds T111.1.1 to T111.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 113

This table discloses the 1201 compounds T113.1.1 to T113.1.1201 of the formula

$$R_5$$
 N
 N
 R_6
 N
 R_1
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 114

This table discloses the 1201 compounds T114.1.1 to T114.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \end{array} \begin{array}{c} N \\ \end{array} \begin{array}{c} CH_3 \\ N \\ \end{array} \begin{array}{c} R_1 \\ N \\ \end{array} \\ F_3C \\ \end{array} \begin{array}{c} F_3C \\ \end{array} \begin{array}{c} R_2, \end{array}$$

This table discloses the 1201 compounds T115.1.1 to T115.1.1201 of the formula

506 TABLE 118

This table discloses the 1201 compounds T118.1.1 to T118.1.1201 of the formula

(T118)

in which, for each of these 1201 specific compounds, each 15 of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

(T115)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 116

This table discloses the 1201 compounds T116.1.1 to T116.1.1201 of the formula

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in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 117

This table discloses the 1201 compounds T117.1.1 to T117.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2
 R_1

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 119

This table discloses the 1201 compounds T119.1.1 to T119.1.1201 of the formula

(T119)

$$\begin{array}{c} R_5 \\ O \\ \\ B_T \end{array} \begin{array}{c} N \\ \\ R_6 \end{array} \begin{array}{c} R_1 \\ \\ R_2, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from 35 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 120

This table discloses the 1201 compounds T120.1.1 to T120.1.1201 of the formula

(T120)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 121

This table discloses the 1201 compounds T121.1.1 to T121.1.1201 of the formula

(T121)HF₂C

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in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 122

This table discloses the 1201 compounds T122.1.1 to T122.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \hline \\ H_2N \\ \hline \\ S \end{array}$$

$$\begin{array}{c} N \\ R_6 \\ \hline \\ R_2, \end{array}$$

$$(T122)$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 123

This table discloses the 1201 compounds T123.1.1 to T123.1.1201 of the formula

$$\begin{array}{c} R_5 \\ N \\ N \\ N \\ N \end{array}$$

$$\begin{array}{c} R_1 \\ R_2 \\ N \end{array}$$

$$\begin{array}{c} R_1 \\ R_2 \\ N \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 124

This table discloses the 1201 compounds T124.1.1 to T124.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables $\rm R_1, \, R_2, \, R_5$ and $\rm R_6$ has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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TABLE 125

This table discloses the 1201 compounds T125.1.1 to T125.1.1201 of the formula

(T125)

$$R_5$$
 N
 R_1
 R_3
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 126

This table discloses the 1201 compounds T126.1.1 to T126.1.1201 of the formula

(T126)

$$R_5$$
 N
 R_1
 R_3
 R_4
 R_6
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 127

This table discloses the 1201 compounds T127.1.1 to T127.1.1201 of the formula

(T127)

$$R_5$$
 N
 R_1
 R_3
 R_6
 R_2

TABLE 128

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TABLE 131

This table discloses the 1201 compounds T128.1.1 to T128.1.1201 of the formula

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This table discloses the 1201 compounds T131.1.1 to T131.1.1201 of the formula

(T131)

(T132)

(T128)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from 20 the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 129

This table discloses the 1201 compounds T129.1.1 to T129.1.1201 of the formula TABLE 132

This table discloses the 1201 compounds T132.1.1 to T132.1.1201 of the formula

(T129) ₃₀

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 130

This table discloses the 1201 compounds T130.1.1 to T130.1.1201 of the formula

TABLE 133

This table discloses the 1201 compounds T133.1.1 to T133.1.1201 of the formula

(T130)

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in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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(T136)

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511 TABLE 134

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TABLE 137

This table discloses the 1201 compounds T134.1.1 to T134.1.1201 of the formula

This table discloses the 1201 compounds T137.1.1 to T137.1.1201 of the formula

(T134)

$$R_5$$
 N
 R_6
 R_1
 R_6
 R_2
 R_5
 R_6
 R_2
 R_3

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 135

This table discloses the 1201 compounds T135.1.1 to T135.1.1201 of the formula

TABLE 138

This table discloses the 1201 compounds T138.1.1 to T138.1.1201 of the formula

(T135)

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 136

This table discloses the 1201 compounds T136.1.1 to T136.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning $_{65}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

 H_3C

This table discloses the 1201 compounds T140.1.1 to T140.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from $_{15}$ the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 141

This table discloses the 1201 compounds T141.1.1 to T141.1.1201 of the formula

$$R_5$$
 N
 R_6
 R_2
 R_1
 R_2
 R_3
 R_4
 R_4
 R_5
 R_4

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 142

This table discloses the 1201 compounds T142.1.1 to T142.1.1201 of the formula

$$R_5$$
 O
 N
 N
 R_1
 O
 CH_3
 R_6
 R_2 ,
 R_3

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 143

This table discloses the 1201 compounds T143.1.1 to T143.1.1201 of the formula

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in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 144

This table discloses the 1201 compounds T144.1.1 to T144.1.1201 of the formula

(T144)

$$R_5$$
 O
 N
 N
 R_1
 R_2

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 145

This table discloses the 1201 compounds T145.1.1 to T145.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning diven in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 146

This table discloses the 1201 compounds T146.1.1 to T146.1.1201 of the formula

(T146)

$$R_5$$
 N
 R_6
 R_2
 R_3
 R_4
 R_5
 R_6
 R_2

515 **TABLE 147**

516 **TABLE 150**

This table discloses the 1201 compounds T147.1.1 to T147.1.1201 of the formula

This table discloses the 1201 compounds

(T147)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from $\ _{20}$ the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 148

This table discloses the 1201 compounds T148.1.1 to T148.1.1201 of the formula

(T148)

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$$R_5$$
 N
 N
 R_1
 R_2
 R_3
 R_4

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning $\ ^{40}$ given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 149

This table discloses the 1201 compounds T149.1.1 to T149.1.1201 of the formula

(T149)

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in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

T150.1.1 to T150.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 151

This table discloses the 1201 compounds T151.1.1 to T151.1.1201 of the formula

(T150)

$$\begin{array}{c} R_{5} \\ N \\ N \\ R_{6} \end{array}$$

$$\begin{array}{c} R_{1} \\ R_{2}, \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 152

This table discloses the 1201 compounds T152.1.1 to T152.1.1201 of the formula

(T152)

$$\begin{array}{c|c}
R_5 & N & \\
N & N & \\
N & R_1 & \\
R_6 & R_2 & \\
\end{array}$$

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517 **TABLE 153**

518 **TABLE 156**

This table discloses the 1201 compounds

This table discloses the 1201 compounds T153.1.1 to T153.1.1201 of the formula

(T153) 10

T156.1.1 to T156.1.1201 of the formula

$$R_5$$
 N
 N
 R_1
 R_6
 R_2

(T156)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from 20 of the variables R₁, R₂, R₅ and R₆ has the specific meaning the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 154

This table discloses the 1201 compounds T154.1.1 to T154.1.1201 of the formula

(T154)35

in which, for each of these 1201 specific compounds, each given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 157

This table discloses the 1201 compounds T157.1.1 to T157.1.1201 of the formula

(T157)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from 45 the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 155

This table discloses the 1201 compounds T155.1.1 to T155.1.1201 of the formula

(T155) 55 60

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 158

This table discloses the 1201 compounds T158.1.1 to T158.1.1201 of the formula

(T158)

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning 65 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

in which, for each of these 1201 specific compounds, each of the variables R₁, R₂, R₅ and R₆ has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

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(T160)

This table discloses the 1201 compounds T159.1.1 to T159.1.1201 of the formula

$$R_5$$
 N R_1 R_2 R_2 R_2

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning 20 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 160

This table discloses the 1201 compounds T160.1.1 to T160.1.1201 of the formula

in which, for each of these 1201 specific compounds, each $_{40}$ of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 161

This table discloses the 1201 compounds T161.1.1 to T161.1.1201 of the formula

$$\begin{array}{c|c} R_5 & N & \\ \hline \\ O & N & \\ \hline \\ O & N & \\ \hline \\ N & N & \\ R_6 & N & \\ R_2 & \\ \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning 65 given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

This table discloses the 1201 compounds T162.1.1 to T162.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \hline \\ N \\ \hline \\ N \\ R_6 \\ \hline \\ R_2 \\ \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables $R_1,\,R_2,\,R_5$ and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 163

This table discloses the 1201 compounds T163.1.1 to T163.1.1201 of the formula

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

TABLE 164

This table discloses the 1201 compounds T164.1.1 to T164.1.1201 of the formula

$$\begin{array}{c} R_5 \\ O \\ \\ \end{array} \begin{array}{c} N \\ \\ \\ \end{array} \begin{array}{c} N \\ \\ \\ \\ \end{array} \begin{array}{c} N \\ \\ \\ \\ \end{array} \begin{array}{c} (T164) \\ \\ \\ \\ \end{array}$$

in which, for each of these 1201 specific compounds, each of the variables R_1 , R_2 , R_5 and R_6 has the specific meaning given in the corresponding line, appropriately selected from the 1201 lines A.1.1 to A.1.1201 of Table A.

In further embodiments the invention provides novel intermediates to provide compounds according to formula (I) are compounds of formula (IV)

$$\begin{array}{c|c} R_{100} & & & \\ \hline \\ R_3 & & & \\ \hline \\ R_7 & & & \\ \hline \\ R_7 & & & \\ \hline \\ R_2 & & \\ \end{array}$$

wherein R_{100} is wherein R_{100} is halogen, SH, C_1 - C_4 -alkylthio, C_1 - C_4 -alkylsulfinyl, C_1 - C_4 -alkylsulfonyl and R_1 , R_2 , R_3 , R_4 , R_6 and R_7 are as described herein for compounds of formula (I).

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20 R.11

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R.12

R.10

The Following Table Provides a Selection of Compounds of Formula (IV)

-continued

R.05

$$\begin{array}{c} N = \\ \\ N = \\ \\ N = \\ N$$

$$\begin{array}{c} O \\ O \\ O \\ \end{array}$$

-continued

-continued

-continued

-continued

R.33 R.41 5 ¹⁰ R.42 R.34 15 R.35 R.43 20 R.36 25 R.44 30 R.45 R.37 35 R.46 R.38 45 50 R.47 R.39 55 R.48 R.40 60

65

-continued

-continued

The active compounds of component B are known e.g. from the Pesticide Manual (British Crop Protection Council). N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide has the Chemical Abstracts Registry Number [1072957-71-1]. The compound of formula (II) has the Chemical Abstracts Registry Number [173662-97-0]. The compounds (S)-[3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)isoxazol-4-yl]pyridin-3-yl-methanol, 3-(4-Chloro-2-fluoro-phenyl)-5-(2,4-difluoro-phenyl)isoxazol-4-yl]pyridin-3-yl-methanol are found in WO2010069881.

The active ingredient mixture of the compounds of formula I selected from tables T1 to T164 or a specific compound 50 selected from P.1 to P.372 with active ingredients described above comprises a compound selected from tables T1 to T164 and an active ingredient as described above preferably in a mixing ratio of from 100:1 to 1:6000, especially from 50:1 to 1:500, more especially in a ratio of from 20:1 to 1:200, even 55 more especially from 10:1 to 1:100, very especially from 5:1 and 1:50, special preference being given to a ratio of from 3:1 to 1:10, and a ratio of from 3:1 to 1:5 being likewise preferred, above all in a ratio of 1:1, or 5:1, or 5:2, or 5:3, or 5:4, or 4:1, or 4:2, or 4:3, or 3:1, or 3:2, or 2:1, or 1:5, or 2:5, or 3:5, or 4:5, 60 or 1:4, or 2:4, or 3:4, or 1:3, or 2:3, or 1:2, or 1:600, or 1:300, or 1:150, or 1:35, or 2:35, or 4:35, or 1:75, or 2:75, or 4:75, or 1:6000, or 1:3000, or 1:1500, or 1:350, or 2:350, or 4:350, or 1:750, or 2:750, or 4:750. Those mixing ratios are understood to include, on the one hand, ratios by weight and also, on other 65 hand, molar ratios.

The mixtures comprising a compound of formula I e.g. selected from tables T1 to T164 or a specific compound

selected from P.1 to P.372 and one or more active ingredients as described above can be applied, for example, in a single "ready-mix" form, in a combined spray mixture composed from separate formulations of the single active ingredient components, such as a "tank-mix", and in a combined use of the single active ingredients when applied in a sequential manner, i.e. one after the other with a reasonably short period, such as a few hours or days. The order of applying the compounds of formula I e.g. those selected from tables T1 to T164 and the active ingredients as described above is not essential for working the present invention.

A synergistic effect exists whenever the action of an active ingredient combination is greater than the sum of the actions of the individual components.

The action to be expected E for a given active ingredient combination obeys the so-called COLBY formula and can be calculated as follows (COLBY, S. R. "Calculating synergistic and antagonistic responses of herbicide combination". Weeds, Vol. 15, pages 20-22; 1967):

ppm=milligrams of active ingredient (=a.i.) per liter of 20 spray mixture

X=% action by active ingredient A) using p ppm of active ingredient

Y=% action by active ingredient B) using q ppm of active ingredient. According to COLBY, the expected (additive) action of active ingredients A)+B) using p+q ppm of active ingredient is

$$E = X + Y - \frac{X \cdot Y}{100}$$

If the action actually observed (O) is greater than the expected action (E), then the action of the combination is super-additive, i.e. there is a synergistic effect. In mathematical terms the synergism factor SF corresponds to O/E. In the agricultural practice an SF of ≥ 1.2 indicates significant improvement over the purely complementary addition of activities (expected activity), while an SF of ≤ 0.9 in the practical application routine signals a loss of activity compared to the expected activity.

EXAMPLES

Preparation of 1-(3,5-difluorophenyl)ethanol

$$F$$
 OH
 F

To a colorless stirred solution of $^{3'}$, $^{5'}$ -diffluoroacetophenone (50.00 g, 320.24 mmol) in methanol (320 mL), sodium borohydride (3.41 g, 86.47 mmol), 0.27 eq) was added portion wise 60 over 20 minutes at room temperature under inert atmosphere (Ar). Then the reaction mixture was stirred for 45 min at room temperature and then quenched carefully by the addition of a saturated aqueous ammonium chloride solution (150 mL). The extraction was carried out with ethyl acetate (2×200 mL). 65 The combined organic layers were washed with brine (200 mL), dried over anhydrous Na,SO₄ and filtered. The solvent

was removed in vacuo to give the title compound (50.29 g, 99%) as a colorless oil. The alcohol was used as such in the subsequent step.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.27.

Preparation of (-)-(S)-1-(3,5-difluorophenyl)ethanol

To a stirred solution of (-)-DIP-C1 ((-)-diisopinocampheylboron chloride) (2.67 g, 8.33 mmol, 1.3 eq) in THF (20 mL) kept under inert atmosphere (Ar) and cooled to -27° C. to -25° C., 3',5'-difluoroacetophenone (1.00 g, 6.40 mmol) was added drop wise over 2 min. The reaction was maintained at this temperature for 17 h. The reaction mixture was then treated with acetaldehyde (0.44 mL, 7.69 mmol, 1.2 eq). Thereafter, the temperature was allowed to reach room temperature and the reaction mixture was stirred at for 7 h. The solvent was then removed in vacuo and the resulting residue was partitioned between water (10 mL) and TBME (tertbutyl-methyl ether) (20 mL). The aqueous phase was extracted again with TBME (20 mL). The organic layer was washed with an aqueous 2 N NaOH solution (20 mL), brine (20 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a residue, which was purified by two subsequent column chromatographic steps: First by normal phase chromatography (silica gel, heptane/ ethyl acetate, v/v=1/0-9/1) followed by a reversed phase chromatography (90 C₁₈-silica gel, acetonitrile for the second one). This gave the title compound (0.40 g, 40%) as a colorless oil with a specific rotation of $[\alpha]^{25}_D = -26.66$ (c=1.054) g/100 mL, CH₂Cl₂, 589 nm).

Preparation of cis and trans 4-isopropylcyclohexanol

To a stirred solution of 4-isopropylcyclohexanone (10.00 g, 68.46 mmol) in tert-butyl methyl ether (136 mL) cooled to 7° C. (cooling bath with a cyclohexane/liquid nitrogen slurry), a 1.00 M solution of lithium aluminium hydride in THF (23 mL, 22.59 mmol, 0.33 eq) was added drop wise over 35 minutes while keeping the temperature in the range of 7 to 10° C. Stirring was continued under these conditions. The reaction mixture was then allowed to reach room temperature and stirred at this temperature for an additional 40 minutes. It

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was then carefully quenched by the slow addition of water (20 mL), followed by a one molar aqueous sulfuric acid solution (60 mL). The extraction was carried out with tert-butyl methyl ether (2×50 mL). The organic layer was washed with a saturated aqueous $\rm Na_2CO_3$ solution (80 mL), brine (80 mL), dried over anhydrous $\rm Na_2SO_4$ and filtered. The solvent was removed in vacuo to give a residue, which was purified by column chromatography (silica gel, heptane/ethyl acetate, v/v=1/0–9/1). Fractions containing the pure compounds were collected and concentrated in vacuo to give pure trans (6.91 g, 71%) and the pure cis isomer (0.68 g, 5%) of 4-isopropyl-cyclohexanol both as colourless oils.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, detection by spraying with Mo—Ce reagent, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of cis 4-isopropylcyclohexanol=0.20); R_f of trans 4-isopropylcyclohexanol=0.15.

Preparation of 3-bromo-2-(cis-4-isopropylcyclohexoxy)-6-methyl-5-nitro-pyridine

$$+ HO \longrightarrow N^{+} O$$

$$\longrightarrow N^{+} O$$

$$\longrightarrow N^{+} O$$

$$\longrightarrow N^{+} O$$

$$\longrightarrow N^{+} O$$

To a stirred suspension of 3-bromo-6-methyl-5-nitro-pyridin-2-ol (23.65 g, 101.5 mmol) in THF (180 mL), trans isopropylcyclohexanol (14.44 g, 101.5 mmol, 1.0 eq) and triphenylphosphine (32.27 g, 121.8 mmol, 1.2 eq) were added at room temperature under inert atmosphere (Ar). To this mixture, DIAD (diisopropyl diazodicarboxylate) (25.51 mL, 121.8 mmol, 1.2 eq) was added drop wise over 45 min while keeping the temperature below 45° C. Then, the reaction mixture was stirred for 5 h under heating to reflux. TLC indicated that the starting material was consumed. The reaction mixture was therefore allowed to reach room temperature and it was quenched by the addition of water (250 mL). The extraction was carried out with ethyl acetate (3×200 mL). The organic layer was washed with brine (300 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a residue, which was purified by column chromatography (silica gel, heptane/ethyl acetate, v/v=1/0-98/2). Fractions containing the pure compound were collected and concentrated in vacuo to give title compound (22.59 g, 62%) in the form of an oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated 65 atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.64.

Preparation of 5-bromo-6-(cis-4-isopropylcyclohex-oxy)-2-methyl-pyridin-3-amine

To a stirred solution of 3-bromo-2-(cis-4-isopropylcyclohexoxy)-6-methyl-5-nitro-pyridine (22.59 g, 63.24 mmol) in EtOH/H₂O (600 mL/150 mL, 4/1 v/v), ammonium chloride (3.45 g, 63.24 mmol, 1.0 eq) and iron powder (14.27 g, 253.0 mmol, 4 eq) were added at room temperature under inert atmosphere (Ar). The reaction mixture was stirred for 3 h under heating to reflux. As TLC indicated that the starting material was consumed at this point in time, the reaction mixture was cooled to room temperature and filtered through a pad of celite. The resulting filtrate was concentrated in vacuo and the residue partitioned between a 2 molar aqueous NaOH solution (100 mL) and ethyl acetate (150 mL). After phase separation, the aqueous phase was extracted once more with ethyl acetate (2×100 mL). The organic layer was washed with brine (400 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to afford the title compound (21.01 g, 101%) in the form of an oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.19.

Preparation of N'-[5-bromo-6-(cis-4-isopropylcyclohexoxy)-2-methyl-3-pyridyl]-N-ethyl-N-methyl formamidine

The Vilsmeier reagent was freshly prepared by the slow addition of phosphorus oxychloride (7.09 mL, 75.89 mmol, 15 1.2 eq) to a solution of N,N-ethylmethylformamide (6.61 g, 75.89 mmol, 1.2 eq) in dichloromethane (75 mL) at room temperature. After the addition was complete, the reaction mixture was stirred at room temperature for 1 h. The Vilsmeier reagent was then added drop wise over 40 min to a $_{20}$ solution of 5-bromo-6-(cis-4-isopropylcyclohexoxy)-2-methyl-pyridin-3-amine (20.70 g, 63.24 mmol) in dichloromethane (225 mL) at room temperature under inert atmosphere (Ar). Stirring was continued for 1.5 h at room temperature. The reaction mixture was then quenched by the addition of water (100 mL) and the pH was adjusted to 14 by the addition of a 2.0 molar aqueous NaOH solution (80 mL). The phases were separated and the aqueous phase extracted with dichloromethane (2×100 mL). The organic layer was washed with brine (250 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a residue, which was purified by column chromatography (silica gel, heptane/ethyl acetate, v/v=1/0-4/1). Fractions containing the pure compound were collected and concentrated in vacuo to give the title compound (20.23 g, 81%) as a yellow oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.29.

¹H NMR (400 MHz, CDCl₃): δ (ppm)=7.45-7.30 (broad s, 1H), 7.23 (s, 1H), 5.32-5.28 (m, 1H), 3.55-3.24 (broad s, 2H), 40 2.98 (s, 3H), 2.35 (s, 3H), 2.04-2.01 (m, 2H), 1.63-1.46 (m, 7H), 1.20 (t, 3H), 1.18-1.10 (m, 1H), 0.91-0.89 (d, 6H).

Preparation of 3-bromo-2-(trans-4-isopropylcyclohexoxy)-6-methyl-5-nitro-pyridine

To a stirred suspension of 3-bromo-6-methyl-5-nitro-pyridin-2-ol (2.00 g, 8.58 mmol) in THF (8.6 mL), cis isopropylcyclohexanol (1.44 g, 8.58 mmol, 1.0 eq) and triphenylphosphine (2.73 g, 10.30 mmol, 1.2 eq) were added at room temperature under inert atmosphere (Ar). To this mixture, DIAD (diisopropyl diazodicarboxylate) (2.16 mL, 10.30 mmol, 1.2 eq) was added drop wise over 10 minutes while keeping the temperature below 40° C. The reaction mixture was stirred for 1.5 h under heating to. After this point in time, TLC indicted consumption of the starting material and the reaction mixture was allowed to reach room temperature and was quenched by adding water (20 mL). The water phase was extracted with ethyl acetate (3×20 mL). The organic layer was washed with brine (35 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a residue, which was purified by column chromatography (silica gel, heptane/ethyl acetate, v/v=1/0-9/1). Fractions containing the pure compound were collected and concentrated in vacuo to give the title compound (0.94 g, 30%) as an

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.65.

Preparation of 5-bromo-6-(trans-4-isopropylcyclo-hexoxy)-2-methyl-pyridin-3-amine

To a stirred solution of 3-bromo-2-(trans-4-isopropylcyclohexoxy)-6-methyl-5-nitro-pyridine (0.917 g, 2.00 mmol) in EtOH/H₂O (24 mL/6 mL, 4/1 v/v), ammonium chloride (0.109 g, 2.00 mmol, 1.0 eq) and iron powder (0.452 g, 8.00 mmol, 4 eq) were added at room temperature under inert atmosphere (Ar). The reaction mixture was stirred under heating to reflux for 3 h. At this point in time, TLC indicated that the starting material was consumed. Therefore, the reaction mixture was allowed to reach room temperature and was filtered through a pad of celite. The filtrate was concentrated under reduced pressure and the residue partitioned between a 2 molar aqueous NaOH solution (20 mL) and ethyl acetate (30 mL). The phases were separated and the aqueous phase extracted with ethyl acetate (2×20 mL). The organic layer was washed with brine (40 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to afford the title compound (0.658 g, 100%) as an oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.19.

The Vilsmeier reagent was freshly prepared by the slow addition of phosphorus oxychloride (0.101 mL, 1.08 mmol, 1.2 eq) to a solution of N,N-ethylmethylformamide (0.094 g, 30 1.08 mmol, 1.2 eq) in dichloromethane (0.5 mL) at room temperature. After the addition was complete, the reaction mixture was stirred at room temperature for 1 h. Then the Vilsmeier reagent thus obtained was added drop wise to a solution of 5-bromo-6-(trans-4-isopropylcyclohexoxy)-2- 35 methyl-pyridin-3-amine (0.295 g, 0.90 mmol) in dichloromethane (1.0 mL) at room temperature under inert atmosphere (Ar). Stirring was continued was for 1.5 h at room temperature. The reaction was then quenched by the addition of a 2 molar aqueous NaOH solution (5 mL). The phases were 40 separated and the aqueous phase extracted with dichlormethane (2×10 mL). The organic layer was washed with brine (10 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a residue, which was purified by column chromatography (silica gel, heptane/ethyl 45 acetate, v/v=1/0-4/1). Fractions containing the pure compound were collected and concentrated in vacuo to give the title compound (0.191 g, 54%) as a light yellow oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.29.

¹H NMR (400 MHz, CDCl₃): δ (ppm)=7.45-7.30 (broad s, 1H), 7.22 (s, 1H), 4.93-4.85 (m, 1H), 3.55-3.22 (broad s, 2H), 2.98 (s, 3H), 2.35 (s, 3H), 2.19-2.15 (m, 2H), 1.80-1.77 (m, 2H), 1.50-1.09 (m, 5H), 1.28 (t, 3H), 0.88-0.86 (d, 6H).

Preparation of N-Ethyl-N-methyl-formamide

536

113 g (1.912 mol) of ethylmethylamine was dissolved in 500 mL of dry toluene. 75.86 mL of formic acid (92.2 g, 2.01 mol) was added drop-wise over 20 minutes. Hereby, an exothermic reaction was observed. The temperature was kept below 35° C. by cooling with an ice-water cooling bath. The turbid solution was stirred under heating to reflux (bath temperature of 175° C.) and the water removed using a Dean and Stark separator. 46 mL of water phase was thus separated. This water phase was extracted with 50 mL of ethyl acetate. And this ethyl acetate solution was added to the reaction mixture, after this one was allowed to reach room temperature. After evaporation of the solvent, the resulting liquid was subjected to a fractionating column distillation (Widmer column) at 80 mbar. 138 g of a colourless liquid of bp=95-96° C. was collected. As this material was contaminated with formic acid, the liquid was taken up in 1.0 L of ethyl acetate and kept over K₂CO₃ (occasional stirring, 24 h overall). The solution was then filtered and washed with water and the organic phase was again subjected to the distillation procedure mentioned before. This gave 130.4 g of the title compound as a liquid (bp=95-96° C., 80 mbar).

Preparation of methoxyethylmethyl-methanaminium methyl sulfate

128 g of N-ethyl-N-methyl-formamide was added slowly to 139 mL (185 g, 1.469 mol) of dimethyl sulfate (the dimethyl sulfate used was freshly distilled in vacuo after having been tried over K₂CO₃). The colourless solution was warmed under stirring to 50° C. whereupon an exothermic reaction was starting up. The heating bath was removed and the reaction mixture reached a temperature of 86° C. After the exothermicity came to an end, the reaction mixture was stirred at a temperature of 80° C. for an additional 3 hours. Thereafter, the reaction mixture was allowed to reach room temperature. The resulting liquid was then shaken in a separatory funnel first with 100 mL of toluene and, after phase separation, with 100 mL of diethyl ether. Traces of solvents were removed in vacuo (rotovapor) to give 294 g of the title compound in the form of a colourless liquid. The compound was used as such in the subsequent step.

Preparation of 5-Bromo-2-methyl-3-nitro-6-[2,2,2-trifluoro-1-(4-fluorophenyl)ethoxy]pyridine

60

To a stirred suspension of 3-bromo-6-methyl-5-nitro-pyridin-2-ol (0.10 g, 0.43 mmol) in THF (3 mL), 2,2,2-trifluoro-1-(4-fluorophenyl)ethanol (0.13 g, 0.64 mmol, 1.5 equiv) and triphenylphosphine (0.17 g, 0.64 mmol, 1.5 eq) were added at room temperature under inert atmosphere (Ar). To this mixture, DIAD (diisopropyl diazodicarboxylate) (0.13 mL, 0.64 mmol, 1.5 eq) was added dropwise over 10 minutes while keeping the temperature below 40° C. The reaction mixture was stirred for 6 h under heating at 60° C. After this time, TLC indicted that the starting material had been consumed and the reaction mixture was allowed to reach room temperature before quenching with water (10 mL). The water phase was extracted with ethyl acetate (3×15 mL). The organic layer was washed with brine (20 mL), dried over anhydrous Na₂SO₄ 30 and filtered. The solvent was removed in vacuo to give a brown residue, which was purified by combiflash column chromatography (silica gel, heptane/ethyl acetate, v/v=95/5). Fractions containing the pure compound were collected and concentrated in vacuo to give the title compound (0.11 g, 62% 35 yield) as a yellow oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 4:1 (v/v); R_f of the title compound=0.65.

Preparation of 2,2,2-Trifluoro-1-[4-(trifluoromethyl) phenyl]ethanol

$$F_3C$$
 CF_3 F_3C CCF_3

In a 50 mL two-neck flask, 2,2,2-trifluoro-1-[4-(trifluoromethyl)phenyl]ethanone (2.0 g, 8.3 mmol) was dissolved in methanol (8 mL) and sodium borohydride (0.31 g, 8.3 mmol) was added carefully in portions with ice-bath cooling. The resultant colourless solution was stirred at RT for 2 hours and monitored by TLC. Upon the disappearance of all starting material, 5 mL of an aqueous saturated NH₄Cl solution was slowly added to the reaction mixture with additional stirring for 10 min. The later was extracted 3 times with 20 mL of EtOAc and the organic fractions were combined and washed with 10 mL of brine, dried over Na₂SO₄, and filtered. The solvent was removed under reduced pressure to give 2,2,2-trifluoro-1-[4-(trifluoromethyl)phenyl]ethanol (2.13 g, quantitative) as a colourless oil which was used with no further purification.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 2:1 (v/v); R_f of the title compound=0.50.

Preparation of 5-Bromo-2-methyl-3-nitro-6-[2,2,2-trifluoro-1-[4-(trifluoromethyl)phenyl]ethoxy]pyridine

$$F_3C$$
 CF_3
 $+$
 NO_2
 B_1
 F_3C
 CF_3
 NO_2
 NO_2
 NO_2
 NO_2

To a stirring suspension of 3-bromo-6-methyl-5-nitro-pyridin-2-ol (0.25 g, 1.07 mmol) in THF (7 mL), 2,2,2-trifluoro-1-[4-(trifluoromethyl)phenyl]ethanol (0.39 g, 1.61 mmol, 1.5 equiv) and triphenylphosphine (0.42 g, 1.61 mmol, 1.5 eq) were added at room temperature under inert atmosphere (Ar). To this mixture, DIAD (diisopropyl diazodicarboxylate) (0.33 mL, 1.61 mmol, 1.5 eq) was added dropwise over 10 minutes while keeping the temperature below 40° C. The reaction mixture was stirred for 6 h under heating at 60° C. After this time, TLC indicted that the starting material was consumed and the reaction mixture was allowed to reach room temperature before quenching with water (10 mL). The water phase was extracted with ethyl acetate (2×50 mL). The organic layer was washed with brine (20 mL), dried over anhydrous Na₂SO₄ and filtered. The solvent was removed in vacuo to give a brown residue, which was purified by combiflash column chromatography (silica gel, heptane/ethyl acetate, v/v=95/5). Fractions containing the pure compound were collected and concentrated in vacuo to give the title compound (0.18 g, 41% yield) as a yellow oil.

TLC: Plates: Merck TLC-Plates, silica gel F_{254} , saturated atmosphere in developing tank, UV detection, eluent: heptanes/ethyl acetate 2:1 (v/v); R_f of the title compound=0.74.

Preparation of 1,1,1-Trifluorohept-6-en-2-ol

To a ice-bath cooled solution of hex-5-enal (500 mg, 4.331 mmol) and trimethyl(trifluoromethyl)silane (0.74 g, 5.13 mmol, 1.2 equiv.) in THF (10 mL) was added tetrabutylammonium hydrofluoride (10 mg, 0.04 mmol). The ice bath was removed and the reaction progress was monitored via GCMS and 1H NMR. Upon complete transformation of the starting material the reaction mixture was treated with 2M HCl and

540

stirred for an additional 2 h. Then, 50 mL of $\rm Et_2O$ was introduced and the layers were separated. The aqueous fraction was additionally extracted with $\rm Et_2O$ and the combined organic phases were washed sequentially with a saturated aqueous NaHCO $_3$ solution, water, and brine. After drying with MgSO $_4$ and filtration the solvent was removed under reduced pressure and the resultant crude residue was purified by column chromatography (silica gel, pentane/ $\rm Et_2O$, v/v=8/

2). Fractions containing the pure compound were collected and concentrated in vacuo to give 1,1,1-trifluorohept-6-en-2-ol (225 mg, 31% yield) as a yellow oil.

Using techniques analogous to those above and further techniques known to the person skilled in the art, for example as found in WO 08/101,682, the compounds found in Table Q were prepared.

TABLE Q

| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H)*) |
|-------|---|---|
| Q.001 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: 1.42 min; 370 |
| Q.002 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: . 1.46 min; 358 |
| Q.003 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: 1.30 min; 328 |
| Q.004 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: 1.33 min; 342 |
| Q.005 | HO O N N N N | Method 4: 1.17 min; 398 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.006 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Gum |
| Q.007 | | Method 4: 1.32 min; 292 |
| Q.008 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: 1.39 min; 356 |
| Q.009 | N N N N N N N N N N | Mp 72-73° C. |
| Q.010 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 4: 1.42 min; 356 |
| Q.011 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Gum |

LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$

Q.012 Br Gum

Q.013 Q.014 Gum

Q.015
$$R$$
 Gum

Q.016 R Gum

Q.017 R Gum

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)* |
|-------|--|--|
| Q.018 | $\bigcap_{N} \bigcap_{N} \bigcap_{N$ | Gum |
| Q.019 | $\bigcup_{N} \bigcup_{N} \bigcup_{N$ | Gum |
| Q.020 | -0 N | Gum |
| Q.021 | | Gum |
| Q.022 | | Gum |
| Q.023 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Gum |

| | TABLE Q-continued | |
|---------|--|--|
| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.024 | $\bigcap_{N \to \infty} N = \bigcap_{N \to \infty} N$ | Gum |
| Q.025 | F O N N N N | Gum |
| Q.026 F | N N N N N N N N N N | Gum |
| Q.027 | $\bigcup_{N} \bigvee_{N} \bigvee_{N$ | Gum |
| Q.028 | $\begin{array}{c} -0 \\ \hline \\ N \\ \hline \\ Br \\ \end{array}$ | Method 4: 1.32 min; 418 |
| Q.029 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.030 | Br N | Method 4: 1.53 min; 544 |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁴ |
|-------|--|--|
| Q.031 | $\begin{array}{c c} O & & & \\ & & & \\ O & & & \\ \hline O & & & \\ \end{array}$ | Gum |
| Q.032 | O Br | Liquid |
| Q.033 | $\bigcap_{N} \bigcap_{N} \bigcap_{N$ | Method 4: 1.31 min; 444 |
| Q.034 | | Method 4: 1.22 min; 340 |
| Q.035 | HO N N N N N N N N N N N N N N N N N N N | Method 4: 0.99 min; 358 |
| Q.036 | HO N N N N N N N N N N N N N N N N N N N | Method 4: 0.98 min; 388 |
| Q.037 | N N N N N N N N N N N N N N N N N N N | Solid |

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.038 | $\bigcup_{O} \bigvee_{N} \bigvee_{N$ | Liquid |
| Q.039 | | Method 4: 1.48 min; 473 |
| Q.040 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.041 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.042 | O N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.043 | HO N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.044 | OH N N N N | Method 4: 1.28 min; 446 |

LC-Method: $R_t(min);$ MS-ESI $(\mathrm{m/z};\,(\mathrm{M}+\mathrm{H})^+)$

| | | LC-Method: R _r (min); MS-ESI (m/z; (M + H)+) |
|---------|--|--|
| Q.052 F | N N N N | Method 4: 1.18 min; 360 |
| Q.053 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.054 | N N N N N N N N N N | Liquid |
| Q.055 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.056 | N N N | Solid |
| Q.057 | $\begin{array}{c} N \\ \\ \end{array}$ | Method 4: 1.19 min; 276 |
| Q.058 | | Method 4: 1.64 min; 348 |

| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H)*) |
|-------|--|---|
| Q.059 | CI———————————————————————————————————— | Method 4: 1.00 min; 392 |
| Q.060 | | Method 4: 1.16 min; 420 |
| Q.061 | | Liquid |
| Q.062 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ | Method 4: 1.34 min; 388 |
| Q.063 | N N N N N N N N N N | Method 4: 1.16 min; 338 |
| Q.064 | Cl N | Mp 77-78° C. |
| Q.065 | | Liquid |

LC-Method:

| | | R_t (min); MS-ESI (m/z; (M + H) ⁺ |
|-------|--|--|
| Q.066 | $\bigcap_{O} \bigcap_{N} \bigcap_{N$ | Liquid |
| Q.067 | Br N N | Liquid |
| Q.068 | N N N N N N N N N N N N N N N N N N N | Solid |
| Q.069 | | Method 4: 1.30 min; 410 |
| Q.070 | N-0 | Liquid |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)+) |
|-------|---|---|
| Q.072 | NH NH NN NN NN NN NN NN NN NN NN NN NN N | Solid |
| Q.073 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Solid |
| Q.074 | N N N N N N N N N N | Liquid |
| Q.075 | N N N N N N N N N N | Liquid |
| Q.076 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.077 | N N N N N N N N N N N N N N N N N N N | Liquid |
| Q.078 | = | Liquid |

TABLE Q-continued

| | | LC-Method: R, (min); MS-ESI (m/z; (M + H)+) |
|-------|--|--|
| Q.079 | | Method 4: 1.39 min; 368 |
| Q.080 | $= - \left\langle \begin{array}{c} N \\ N \\ N \\ N \end{array} \right\rangle$ | Liquid |
| Q.081 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ | Liquid |
| Q.082 | $\bigcap_{N} \bigvee_{N} \bigvee_{N} \bigvee_{N}$ | Liquid |
| Q.083 | $\bigcup_{N} \bigvee_{N} \bigvee_{N$ | Liquid |
| Q.84 | $\bigcap_{N} \bigcap_{N} \bigcap_{N$ | Liquid |
| Q.085 | $\begin{array}{c c} & & \\ $ | Gum |

LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$

Q.092
$$\begin{array}{c} F \\ F \\ \end{array}$$

$$\begin{array}{c} F \\$$

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.093 | Cl | Gum |
| | O N N N N N N N N N N N N N N N N N N N | |
| Q.094 | N N N N N N N N N N | Liquid |
| Q.095 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 13.577 min; 362 |
| Q.096 | Cl O N | Mp 81-82° C. |
| Q.097 | CI O N | Method 2: 11.956 min; 398 |
| Q.098 | N N N N N N N N N N | Method 1: 11.773 min; 352 |
| Q.099 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 11.755 min; 376 |
| Q.100 | | Method 1: 12.320 min; 390 |

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.101 | B_{r} N | Method 1: 12.207 min; 440 |
| Q.102 | | Method 1: 11.873 min; 376 |
| Q.103 | | Method 1: 13.153 min; 382 |
| Q.104 | $\bigcup_{\mathrm{Br}} N \longrightarrow N$ | Method 1: 6.418 min; 438 |
| Q.105 | F O N | Method 1: 11.571 min; 400 |
| Q.106 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}} \bigcup_{\mathrm{N}}$ | Method 1: 12.115 min; 365 |
| Q.107 | N S N N N N N N N N N N N N N N N N N N | Mp 107-108° C. |

| | LC-Method: R_r (min); MS-ESI (m/z; (M + H)*) |
|---|---|
| Q.108 | Method 2: 12.713 min; 523 |
| Q.109 N S O N N N N N N N N N N N N N N N N | Method 1: 12.881 min; 479 |
| Q.110 N N N N N N N N N N N N N N N N N N | Method 2: 12.214 min; 402 |
| Q.111 N | Мр 57-59° С. |
| Q.112 N | Method 2: 12.236 min; 390 |
| Q.113 F O N | Method 1: 12.030 min; 412 |
| Q.114 O N | Method 2: 13.002 min; 404 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.115 | N N N N N N N N N N | Method 1: 9.589 min; 393 |
| Q.116 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 2: 11.625 min; 394 |
| Q.117 | N N N N N N N N N N | Method 2: 6.956 min; 377 |
| Q.118 | | Method 2: 12.577 min; 368 |
| Q.119 | $\bigcup_{N} \bigcup_{N} \bigcup_{N$ | Method 1: 13.850 min; 444 |
| Q.120 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 2: 11.861 min; 354 |
| Q.121 | $\bigcup_{\mathrm{Br}} \mathbb{N} \bigcup_{\mathrm{N}} \mathbb{N}$ | Method 2: 12.977 min; 451 |

| | IABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.122 | $\bigcup_{\mathrm{D}_{\mathrm{Rr}}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 2 13.353 min; 394 |
| Q.123 | F N N N N N N N N N N N N N N N N N N N | Mp 120-121° C. |
| Q.124 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ | Мр 98-99° С. |
| Q.125 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ | Mp 101-102° C. |
| Q.126 | B_{r} N | Method 1: 13.029 min; 480 |
| Q.127 | Br N N N N N | Method 2: 13.168 min; 481 |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|--|
| Q.128 | | Mp 60-62° C. |
| Q.129 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ | Mp 46-48° C. |
| Q.130 | N N N N N N N N N N | Method 2: 3.41 min; 377 |
| Q.131 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Method 2: 12.242 min; 408 |
| Q.132 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 12.688 min; 368 |
| Q.133 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 12.522 min; 368 |
| Q.134 | N N N N N N N N N N | Method 2: 12.979 min; 380 |

| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H)+) |
|-------|--|---|
| Q.135 | N Br | Method 3: 1.49 min; 396; Cis |
| Q.136 | F F N | Method 1: 10.914 min; 431 |
| Q.137 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Mp 43-45° C. |
| Q.138 | N N N N N N N N N N | Method 1: 13.065 min; 402 |
| Q.139 | N N N N N N N N N N | Method 1: 13.387 min; 370 |
| Q.140 | $= \underbrace{\hspace{1cm}}_{O} \underbrace{\hspace{1cm}}_{N} \underbrace{\hspace{1cm}}_{N} \underbrace{\hspace{1cm}}_{N}$ | Method 2: 12.176 min; 366 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|-------|--|--|
| Q.141 | N N N N N N N N N N | Method 1: 12.712 min; 368 |
| Q.142 | | Method 1: 13.557 min; 466 |
| Q.143 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm$ | Mp 71-73° C. |
| Q.144 | S N | Method 1: 11.879 min; 503 |
| Q.145 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Mp 106-107° C. |
| Q.146 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 11.862 min; 344 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|-------|---|--|
| Q.147 | $\bigcup_{O \longrightarrow N} N \longrightarrow N$ $N \longrightarrow N$ $N \longrightarrow N$ $N \longrightarrow N$ | Method 1: 12.605 min; 404 |
| Q.148 | O B_{r} N | Method 1: 12.704 min; 405 |
| Q.149 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 12.642 min; 370 |
| Q.150 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 13.317 min; 372 |
| Q.151 | N N N N N N N N N N | Liquid |
| Q.152 | F F O N N N | Mp 100-101° C. |

TABLE Q-continued

| | TABLE & Continued | |
|-------|--|--|
| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.153 | F F | Mp 43-44° C. |
| | N N N N N N N N N N | |
| Q.154 | | Mp 53-57° C. |
| | O N | |
| Q.155 | N | Mp 75-78° C. |
| | N Br | |
| Q.156 | | Mp 90-91° C. |
| | N N N N N | |
| Q.157 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Mp 125-127° C. |
| Q.158 | S , BI | Liquid |
| | | |
| Q.159 | Br H | Liquid |
| | | |
| | Br | |

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.160 | | Liquid |
| Q.161 | $\begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Liquid |
| Q.162 | | Liquid |
| Q.163 | | Мр 90-95° С. |
| Q.164 | | Mp 88-90° C. |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|--|
| Q.165 | N N N N N N N N N N | Liquid |
| Q.166 | | Liquid |
| Q.167 | O N N N N | Liquid |
| Q.168 | | Liquid |
| Q.169 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Liquid |
| Q.170 | $F \longrightarrow F$ $O \longrightarrow N$ $N \longrightarrow N$ $N \longrightarrow N$ $N \longrightarrow N$ | Liquid |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|---|--|
| Q.171 | N N N N N N N N N N | Liquid |
| Q.172 | N N N N N N N N N N | Mp 72-76° C. |
| Q.173 | N N N N N N N N N N | Liquid |
| Q.174 | $\begin{bmatrix} \\ \\ \\ \end{bmatrix} \\ \begin{bmatrix} \\ \\ \end{bmatrix} \\ \begin{bmatrix} \\ \\ \end{bmatrix} \\ \begin{bmatrix} \\ \\ \\ \end{bmatrix} \\ \begin{bmatrix} \\ \\ \end{bmatrix} \\ \end{bmatrix}$ | Liquid |
| Q.175 | $\bigcup_{\mathrm{Br}} \mathbb{N} \longrightarrow \mathbb{N}$ | Liquid |
| Q.176 | F O N | Liquid |
| Q.177 | | Liquid |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|---|
| | | LC-Method: R _r (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.178 | F O N | Method 2: 12.011 min; 460 |
| Q.179 | | Method 1: 13.777 min; 444; Trans |
| Q.180 | | Method 1: 13.653 min; 444; Cis |
| Q.181 | F O N | Method 2: 11.260 min; 334 |
| Q.182 | | Method 1: 13.163 min; 318; Trans |
| Q.183 | | Method 1: 14.926 min; 318; Cis |

TABLE Q-continued

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|-------------|---------------------------------------|--|
| Q.184 F | $\begin{array}{c} N \\ \end{array}$ | Method 2: 12.116 min; 348 |
| Q.185 | N N N | Method 1: 14.254 min; 332; Trans |
| Q.186 | $N \longrightarrow N$ | Method 1: 15.845 min; 332; Cis |
| Q.187 F O- | N N N N N | Method 2: 12.707 min; 426 |
| Q.188 F O- | N N N N N N N N N N | Method 2: 12.145 min; 426 |
| Q.189 F O — | N N N N N N N N N N N N N N N N N N N | Method 2: 11.943 min; 422 |

| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|--|
| Q.190 | F O N | Method 1: 12.216 min; 436 |
| Q.191 | F O N | Method 2: 12.769 min; 426 |
| Q.192 | F O N | Method 2: 12.121 min; 424 |
| Q.193 | F O N | Method 2: 11.891 min; 424 |
| Q.194 | F O N | Method 2: 11.881 min; 422 |
| Q.195 | N N N N N N N N N N | Mp 52-54° C. |

| | LC-Method: $R_r \text{ (min);}$ $MS-ESI \text{ (m/z; } (M+H)^+)$ |
|--|--|
| Q.196 Br N N N N N N N N N N N N N N N N N N | Method 1: 12.439 min; 466 |
| Q.197 | Method 1: 11.886 min; 416 |
| Q.198 | Method 1: 11.886 min; 390 |
| Q.199 O N Br | Method 1: 11.955 min; 418 |
| Q.200 N N Br | Method 1: 12.096 min; 402 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------------|--|---|
| | | LC-Method: R_{ℓ} (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.201 | N N N N N N N N N N | Method 1: 12.796 min; 418 |
| Q.202 Br | | Method 1: 12.154 min; 496 |
| Q.203 | $\bigcup_{N = 1}^{N} \bigcup_{N = 1}^{N} $ | Method 2: 13.148 min; 404 |
| Q.204 F | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 2: 11.780 min; 412 |
| Q.205 Cl | $\bigcup_{O} \bigvee_{Br} \bigvee_{N} \bigvee_{N}$ | Method 1: 6.785 min; 444 |
| Q.206 F | N N N N N N N N N N | Mp 75-78° C. |
| Q.207 | $\begin{array}{c} N \\ N \\ N \\ N \end{array}$ | Mp 57-58° C. |

| | TABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.208 | N N N N N N N N N N | Method 1: 10.753 min; 368 |
| Q.209 | N N N N N N N N N N | Method 1: 7.472 min; 413 |
| Q.210 | N N N N N N N N N N N N N N N N N N N | Mp 134-135° C. |
| Q.211 | | Method 1: 11.913 min; 440 |
| Q.212 | | Method 1: 11.392 min; 410 |
| Q.213 | HO N N N N N N N N N N N N N N N N N N N | Method 1: 8.301 min; 370 |

TABLE Q-continued

| | 17 IDEE Q continued | |
|-------|---|---|
| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)+) |
| Q.214 | F O N | Method 1: 11.318 min; 364 |
| Q.215 | F O N | Method 1: 12.017 min; 384 |
| Q.216 | F N N N | Method 2: 12.660 min; 374 |
| Q.217 | $F \longrightarrow \bigcup_{Br} N \longrightarrow N$ | Method 1: 12.015 min; 426 |
| Q.218 | F O N | Method 2: 12.403 min; 408 |
| Q.219 | $- \underbrace{\hspace{1cm} \left(\begin{array}{c} N \\ O \\ \end{array} \right)}_{Br} N \underbrace{\hspace{1cm} \left(\begin{array}{c} N \\ \end{array} \right)}_{N} N \underbrace{\hspace{1cm} \left(\begin{array}{c} N \\ \end{array} \right$ | Method 2: 13.469 min; 418 |
| Q.220 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 11.837 min; 354 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.221 | Cl O N | Method 1: 13.221 min; 458 |
| Q.222 | N N N N N N N N N N | Method 2: 11.427 min; 340 |
| Q.223 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 12.006 min; 390 |
| Q.224 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 2: 12.567 min; 416 |
| Q.225 | O N | Method 2: 13.408 min; 430 |
| Q.226 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 12.686 min; 416 |
| Q.227 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 2: 13.431 min; 430 |
| Q.228 | F N | Method 2: 12.346 min; 362 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|-------|--|--|
| Q.229 | F O N N N N N | Method 2: 11.570 min; 358 |
| Q.230 | F N | Method 1: 12.261 min; 372 |
| Q.231 | N N N N N N N N N N | Method 1: 13.535 min; 394 |
| Q.232 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 13.295 min; 394 |
| Q.233 | CI N N N N N N N N N N N N N N N N N N N | Method 2: 11.937 min; 422 |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|---|--|
| Q.234 | $-\!$ | Method 1: 14.173 min; 398 |
| Q.235 | N S N N N N N N N N N N N N N N N N N N | Mp 55-57° C. |
| Q.236 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Mp 40-42° C. |
| Q.237 | | Method 1: 8.524 min; 382 |
| Q.238 | $\bigcup_{\mathrm{Br}} \mathbb{N} = \mathbb{N}$ | Method 1: 19.177 min; 430 |
| Q.239 | $\bigcup_{\mathrm{Dr}} N \longrightarrow N$ | Method 1: 18.583 min; 416 |
| Q.240 | N O N | Method 1: 10.070 min; 447 |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|--|--|
| Q.241 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 12.850 min; 446 |
| Q.242 | | Method 1: 8.079 min; 427 |
| Q.243 | N N N N N N N N N N | Method 1: 12.200 min; 402 |
| Q.244 | $\bigcap_{\mathrm{D}} \bigcap_{\mathrm{N}} \bigcap$ | Method 1: 9.090 min; 356 |
| Q.245 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 1: 8.672 min; 382 |
| Q.246 | $\begin{array}{c} N \\ \longrightarrow \\ O \\ \longrightarrow \\ \longrightarrow \\ N \\$ | Method 1: 11.718 min; 383 |

| | TABLE Q-continued | |
|-------------------|---|--|
| | | $\begin{array}{c} \text{LC-Method:} \\ R_r(\text{min}); \\ \text{MS-ESI} \\ (\text{m/z}; (\text{M} + \text{H})^+) \end{array}$ |
| 2.247 | F F N | Method 1: 13.430 min; 368; Cis |
| 2.248 | | Method 1: 13.051 min; 348; Cis |
| 2.249 | | Method 1: 14.416 min; 358; Cis |
| Q.250 ~~ ~ | | Method 1: 13.413 min; 342; Cis |

| | | LC-Method: R _t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|---|
| Q.251 | | Method 1; 14.420 min; 346; Cis |
| Q.252 | | Method 1: 13.397 min; 346; Trans |
| Q.253 | | Method 2: 13.397 min; 342; Trans |
| Q.254 | | Method 1: 13.900 min; 356 |
| Q.255 | $\begin{array}{c} F \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ | Mp 178-180° C. |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|--|
| Q.256 | F NH NH | Мр 165-168° С. |
| Q.257 | N N N N N N N N N N | Method 3: 1.42 min; 370 |
| Q.258 | N N N N N N N N N N | Method 3: 1.55 min; 412 |
| Q.259 | N N N N N N N N N N | Method 3: 1.68 min; 454 |
| Q.260 | F N | Method 3: 1.34 min; 412; (S) |
| Q.261 | F N | Method 3: 1.34 min; 412; (R) |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|---|--|
| Q.262 | N N N N N N N N N N N N N N N N N N N | Ionic liquid |
| Q.263 | F O N N N | Method 3: 1.41 min; 410 |
| Q.264 | F O N | Method 3: 1.42 min; 428 |
| Q.265 | F O N N N | Method 3 1.40 min; 416 |
| Q.266 | F N | Method 3: 1.21 min; 411 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|---|
| | | LC-Method: $R_r(min);$ MS-ESI $(m/z; (M + H)^+)$ |
| Q.267 | F O N N N N N N N N N N N N N N N N N N | Method 3: 1.55 min: 452 |
| Q.268 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 3: 1.52 min; 396; Trans |
| Q.269 | N = N $N = N$ $N = N$ $N = N$ | Method 3: 1.43 min: 430; Cis |
| Q.270 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Mp 111-113° C.; Trans |
| Q.271 | N N N N N N N N N N | Method 1: 13.010 min; 372 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.272 | \sim Si \sim N \sim | Method 1: 11.512 min; 386 |
| Q.273 | N N N N N N N N N N | Method 1: 14.147 min; 400 |
| Q.274 | N N N N N N N N N N | Method 1: 14.704 min; 414 |
| Q.275 | N N N N N N N N N N | Method 1: 12.441 min; 388 |
| Q.276 | N N N N N N N N N N | Method 1: 12.949 min; 402 |
| Q.277 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 1: 12.412 min; 388 |
| Q.278 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 1: 12.930 min; 402 |
| Q.279 | N N N N N N N N N N | Method 1: 11.765 min; 390 |

TABLE Q-continued

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|------------|---------------------------------------|--|
| Q.280 F O- | N N N N | Method 1: 13.223 min; 376 |
| Q.281 O | | Method 1: 9.144 min; 366 |
| Q.282 O B | | Method 1: 9.411 min; 380 |
| Q.283 | N N N N | Method 1: 13.076 min; 404 |
| Q.284 | N N N N N N N N N N | Method 1: 13.397 min; 404 |
| Q.285 | N N N N N | Method 1: 12.345 min; 390 |
| Q.286 | N N N N N N N N N N | Method 1: 12.464 min; 390 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|--|--|
| Q.287 | $\bigcup_{\mathrm{Br}} \mathbb{N} \longrightarrow \mathbb{N}$ | Method 1: 13.376 min; 418 |
| Q.288 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ | Method 2: 12.056 min; 354 |
| Q.289 | F F F F F F F F F F | Method 1: 11.736 min; 412 |
| Q.290 | F F F F F F F F F F | Mp 81-85° C. |
| Q.291 | $\bigcap_{F} \bigcap_{\operatorname{Br}} \bigcap_{\operatorname{N}} \bigcap_{$ | Method 1: 11.782 min; 408 |
| Q.292 | $ \underbrace{ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} }_{F} \underbrace{ \begin{array}{c} \\ \\ \\ \\ \end{array} }_{N} \underbrace{ \begin{array}{c} \\ \\ \\ \end{array} }_{N} \underbrace{ \begin{array}{c} \\ \\ \\ \\ \end{array} }_{N} \underbrace{ \begin{array}{c} \\ \\ \\ \\ \end{array} }_{N} $ | Method 1: 12.318 min; 422 |
| Q.293 | N N N N N N N N N N | Method 1: 12.503 min; 366 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_t (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.294 | N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N- | Method 1: 13.526 min; 438 |
| Q.295 | Br N | Mp 59-62° C. |
| Q.296 | Br N N | Method 1: 11.641 min; 312 |
| Q.297 | | Method 1: 11.974 min; 326 |
| Q.298 | | Mp 57-61° C. |
| Q.299 | Br N N N N N | Method 1: 12.313 min; 394 |
| Q.300 | Br N N N N N N N N N N N N N N N N N N N | Mp 53-56° C. |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.301 | N N N N N N N N N N | Method 1: 12.908 min; 410 |
| Q.302 | N N N N N N N N N N | Method 1: 12.267 min; 440 |
| Q.303 | N N N N N N N N N N | Method 1: 12.897 min; 454 |
| Q.304 | N N N N N N N N N N | Mp 82-86° C. |
| Q.305 | $\bigcup_{N} \bigcup_{\mathrm{Br}} \bigcup_{\mathrm{N}} \bigcup_{$ | Mp 77-81° C. |
| Q.306 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm$ | Method 1: 12.789 min; 404 |
| Q.307 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 13.266 min; 418 |
| Q.308 | | Method 1: 13.998 min; 396 |

TABLE Q-continued

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|---|--|
| Q.309 | N N N N N N N N N N | Method 1: 13.324 min; 466 |
| Q.310 | | Method 1: 13.568 min; 462 |
| Q.311 | Br N N N N N N N N N N N N N N N N N N N | Method 1: 13.806 min; 462 |
| Q.312 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 14.266 min; 476 |
| Q.313 | N N N N N N N N N N | Method 1: 14.120 min; 476 |

| | LC-Method: R_{r} (min); MS-ESI $(m/z; (M + H)^{*})$ |
|---|---|
| Q.314 | Method 1: 14.042 min; 480 |
| Q.315 \sim | Method 1: 12.395 min; 366 |
| Q.316 O Br | Method 1: 7.382 min; 352 |
| F F O N Br | Mp 78-81° C. |
| Q.318 F O N Br | Method 1: 12.537 min; 430 |
| Q.319 O N N N N N N N N N N N N N N N N N N | Method 1: 13.594 min; 416 |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|--|--|
| Q.320 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Mp 27-30° C. |
| Q.321 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 12.591 min; 390 |
| Q.322 | F O B_{Γ} N | Mp 67-68° C. |
| Q.323 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Mp 83-84° C. |
| Q.324 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 1: 12.813 min; 390 |
| Q.325 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigvee_{\mathrm{N}}^{\mathrm{N}}$ | Мр 56-57° С. |
| Q.326 | F O N | Mp 61-62° C. |
| Q.327 | F O N | Method 1: 13.121 min; 426 |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)* |
|-------|--|--|
| Q.328 | H_2N N N N N N N N N N | Liquid |
| Q.329 | $\bigcup_{\mathrm{Br}} \mathbb{N} = \mathbb{N}$ | Method 1: 14.077 min; 480 |
| Q.330 | $\bigcup_{\mathrm{Br}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}} \bigcup_{\mathrm{N}}^{\mathrm{N}}$ | Method 1: 11.439 min; 392 |
| Q.331 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 11.711 min; 340 |
| Q.332 | $\bigcup_{N \in \mathbb{N}} \mathbb{N}$ | Method 1: 9.781 min; 382; Isomer 1 |
| Q.333 | $\bigcup_{O} \bigvee_{N} \bigvee_{N} \bigvee_{N}$ | Method 1: 9.758 min; 382 Isomer 2 |

TABLE Q-continued

| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|--|
| Q.334 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 6: 0.92 min; 396 |
| Q.335 | N N N N N N N N N N | Method 1: 11.804 min; 408 |
| Q.336 | $S=0$ B_{r} N N N N | Method 1: 8.965 min; 424 |
| Q.337 | $\begin{array}{c c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$ | Mp 104-108° C. |
| Q.338 | | Method 1: 10.918 min; 331 |
| Q.339 | N = N $N = N$ $N =$ | Method 1: 11.312 min; 344 |
| Q.340 | N N N N N N N N N N | Method 1: 12.292 min; 366 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.341 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 11.200 min; 290 |
| Q.342 | | Method 1: 11.930 min; 304 |
| Q.343 | | Method 1: 14.959 min; 360 |
| Q.344 | $\begin{array}{c c} & N \\ & N \\ $ | Method 1: 13.527 min; 418 |
| Q.345 | N N N N N N N N N N | Method 1: 12.808 min; 404 |
| Q.346 | N N N N N N N N N N | Method 1: 13.160 min; 404 |
| Q.347 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 11.431 min; 312 |

| | | $ \begin{aligned} & \text{LC-Method:} \\ & & R_r(\text{min}); \\ & & \text{MS-ESI} \\ & (\text{m/z}; (\text{M} + \text{H})^*) \end{aligned} $ |
|-------|--|---|
| Q.348 | $\begin{array}{c c} \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $ | Method 1: 11.698 min; 326 |
| Q.349 | N N N N N N N N N N | Method 1: 12.595 min; 390 |
| Q.350 | | Method 1: 11.248 min; 312 |
| Q.351 | N N N N N N N N N N | Мр 110-114° С. N |
| Q.352 | | Method 1: 11.715 min; 326 |
| Q.353 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 12.754 min; 404 |

| | | LC-Method: R, (min); MS-ESI (m/z; (M + H)*) |
|-------|---|--|
| Q.354 | | Method 1: 11.787 min; 326 |
| Q.355 | | Method 1: 12.370 min; 340 |
| Q.356 | N = N $N = N$ $N =$ | Method 1: 12.096 min; 354 |
| Q.357 | N N N N N N N N N N | Method 1: 12.656 min; 368 |
| Q.358 | | Method 1: 11.887 min; 326 |
| Q.359 | | Method 1: 12.700 min; 340 |

| | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|--|
| Q.360 | Method 1: 12.328 min; 340 |
| Q.361 | Method 1: 12.882 min; 354 |
| Q.362 | Method 1: 15.320 min; 354 |
| Q.363 | Method 1: 12.506 min; 341 |
| Q.364 | Method 1: 12.385 min; 390 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|--|--|
| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.365 | N N N N N N N N N N N N N N N N N N N | Method 1: 13.743 min; 466 |
| Q.366 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 1: 10.775 min; 328 |
| Q.367 | | Method 1: 10.377 min; 314 |
| Q.368 | | Method 1: 11.191 min; 312 |
| Q.369 | | Mp 120-121° C. |
| Q.370 | | Method 1: 11.282 min; 423 |

TABLE Q-continued

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)+) |
|-------|---|---|
| Q.371 | $\begin{array}{c} -\text{O} \\ \text{O} \\ \text{Br} \end{array}$ | Method 1: 11.875 min; 272 |
| Q.372 | | Method 1: 10.334 min; 344 |
| Q.373 | | Method 1: 10.676 min; 358 |
| Q.374 | | Method 1: 11.096 min; 372 |
| Q.375 | $\begin{array}{c} F \\ \hline \\ O \\ \hline \\ Br \end{array}$ | Method 1: 11.418 min; 390 |
| Q.376 | | Method 1: 11.717 min; 413 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.377 | | Method 1: 10.791 min; 358 |
| Q.378 | $\begin{array}{c} Cl \\ \\ O \\ \\ \end{array}$ $\begin{array}{c} N \\ \\ \end{array}$ | Method 1: 12.258 min; 452 |
| Q.379 | $N \longrightarrow N$ | Mp 168-170° C. |
| Q.380 | | Method 1: 12.229 min; 304; Trans |
| Q.381 | | Method 1: 12.388 min; 305; Cis |
| Q.382 | N = N $N = N$ $N = N$ $N = N$ | Method 1: 12.998 min; 368 |

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
| Q.383 | F O N | Method 6: 0.61 min; 336 |
| Q.384 | F O N | Method 6: 0.67 min; 332 |
| Q.385 | N | Method 3: 1.34 min; 338 |
| Q.386 | | Method 3: 1.34 min; 424 |
| Q.387 | N = N $N = N$ $N = N$ $N = N$ $N = N$ | Method 6: 0.55 min; 286 |
| Q.388 | N = N $N = N$ $N = N$ $N = N$ | Method 6: 0.73 min; 314 |
| Q.389 | N = N $N = N$ $N = N$ $N = N$ $N = N$ | Method 6: 0.79 min; 328 |
| Q.390 | N N N N N N N N N N | Method 6: 0.79 min; 328 |

| | | LC-Method: |
|-------|---|----------------------------|
| Q.391 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 6: 0.83 min; 342 |
| Q.392 | $\begin{array}{c c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$ | Method 6: 0.88 min; 356 |
| Q.393 | N = N $N = N$ $N =$ | Method 6: 0.69 min; 312 |
| Q.394 | N = N $N = N$ $N =$ | Method 6: 0.76 min; 326 |
| Q.395 | F F N | Method 6: 0.79 min; 420 |
| Q.396 | F O Br N N N | Method 6: 0.60 min; 350 |
| Q.397 | $ \begin{array}{c} $ | Method 6: 0.93 min; 442 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^*)$ |
|-------|---------------------------------------|--|
| Q.398 | N N N N N N N N N N | Method 6: 0.86 min; 392 |
| Q.399 | N N N N N N N N N N | Method 6: 0.89 min; 390 |
| Q.400 | N N N N N N N N N N | Method 6: 0.83 min; 404 |
| Q.401 | N N N N N N N N N N | Method 6: 0.89 min; 404 |
| Q.402 | N N N N N N N N N N | Method 6: 0.88 min; 406 |
| Q.403 | | Method 6: 0.99 min; 369 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R, (min); MS-ESI (m/z; (M + H)+) |
| Q.404 | N N N N N N N N N N | Method 6: 0.92 min; 406 |
| Q.405 | r r r r r r r r r r | Method 6: 0.54 min; 334 |
| Q.406 | F O N | Method 1: 8.584 min; 396 |
| Q.407 | | Method 1: 12.363 min; 392 |
| Q.408 | | Method 1: 12.632 min; 319; Trans |
| Q.409 | | Method 1: 12.533 min; 319; Cis |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|--|
| | | LC-Method: R_r (min); MS-ESI (m/z; (M + H) ⁺) |
| Q.410 | | Method 1: 11.796 min; 304 |
| Q.411 | | Method 1: 12.661 min; 318 |
| Q.412 | F O N | Method 1: 14.132 min; 348 |
| Q.413 | F N | Method 1: 14.531 min; 362 |
| Q.414 | | Method 1: 12.019 min; 304 |
| Q.415 | N N N N N N N N N N N N N N N N N N N | Mp 81-83° C. |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)*) |
|-------|---|---|
| Q.416 | N N N N N N N N N N N N N N N N N N N | Method 1: 14.621 min; 410 |
| Q.417 | | Method 1: 15.162 min; 404 |
| Q.418 | | Method 1: 14.413 min; 340 |
| Q.419 | | Method 1: 13.860 min; 326 |
| Q.420 | $\bigcup_{\mathrm{Br}} \mathbb{N} \longrightarrow \mathbb{N}$ | Method 1: 13.191 min; 418 |
| Q.421 | | Method 1: 12.542 min; 354 |

TABLE Q-continued

| | | LC-Method: R _r (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|---|---|
| Q.422 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Мр 61-63° С. |
| Q.423 | | Method 1: 12.785 min; 340 |
| Q.424 | | Method 1: 12.041 min; 326 |
| Q.425 | N N N N N N N N N N | Method 1: 13.378 min; 418 |
| Q.426 | N N N N N N N N N N | Method 1: 13.958 min; 432 |

| | | LC-Method: R_r (min); MS-ESI $(m/z; (M + H)^+)$ |
|-------|---|--|
| Q.427 | | Method 1: 8.845 min; 374 |
| Q.428 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 13.142 min; 370 |
| Q.429 | N N N N N N N N N N | Method 1: 10.416 min; 358 |
| Q.430 | N N N N N N N N N N | Mp 122-124° C. |
| Q.431 | | Method 1: 10.943 min; 310 |
| Q.432 | | Method 1: 11.341 min; 324 |

| | | $ \begin{array}{c} \text{LC-Method:} \\ R_{_{\it{f}}}(\text{min}); \\ \text{MS-ESI} \\ (\text{m/z}; (\text{M} + \text{H})^*) \end{array} $ |
|-------|---|--|
| Q.433 | O N | Method 1: 12.746 min; 356 |
| Q.434 | | Method 1: 10.964 min; 278 |
| Q.435 | | Method 1: 10.497 min; 264 |
| Q.436 | $\bigcup_{O \longrightarrow \mathbb{N}} \mathbb{N} = \mathbb{N}$ | Method 1: 12.277 min; 390 |
| Q.437 | N N N N N N N N N N | Method 1: 12.606 min; 368 |
| Q.438 | | Method 1: 9.727 min; 370 |
| Q.439 | $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ | Method 1: 12.860 min; 404 |

| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H) ⁺) |
|-------|--|--|
| Q.440 | | Method 1: 10.054 min; 262 |
| Q.441 | | Method 1: 12.781 min; 276 |
| Q.442 | | Method 1: 13.922 min; 326 |
| Q.443 | | Method 1: 12.141 min; 342 |
| Q.444 | $\bigcup_{\mathrm{D}} \sum_{\mathrm{Br}} \sum_{\mathrm{N}} $ | Method 1: 12.715 min; 356 |
| Q.445 | $ \begin{array}{c} F \\ O \\ Br \end{array} $ $ \begin{array}{c} N \\ N \\ N \end{array} $ $ \begin{array}{c} N \\ N \\ N \end{array} $ | Method 1: 11.909 min; 412 |
| Q.446 | O N | Method 1: 9.174 min; 356 |

TABLE Q-continued

| | TABLE Q-continued | |
|-------|---|---|
| | | LC-Method: R_t (min); MS-ESI (m/z; (M + H)+) |
| Q.447 | O O O O O O O O O O | Method 1: 9.174 min; 356 |
| Q.448 | | Mp 106-107° C. |
| Q.449 | N N N N N N N N N N | Method 1: 12.070 min; 354 |
| Q.450 | N N N N N N N N N N | Method 1: 12.652 min; 368 |
| Q.451 | O-N $O-N$ | Method 1: 10.212 min; 385 |
| Q.452 | | Method 1: 11.435 min; 324 |
| Q.453 | | Method 1: 11.704 min; 338 |

15

TABLE O-continued

Biological Examples

Blumeria graminis f. sp. tritici (Erysiphe graminis f. sp. tritici)/Wheat/Leaf Disc Preventative (Powdery Mildew on Wheat)

Wheat leaf segments cv. Kanzler were placed on agar in a multiwell plate (24-well format) and sprayed with the formulated test compound diluted in water. The leaf disks were inoculated by shaking powdery mildew infected plants above the test plates 1 day after application. The inoculated leaf disks were incubated at 20° C. and 60% rh under a light regime of 24 h darkness followed by 12 h light/12 h darkness in a climate chamber and the activity of a compound was assessed as percent disease control compared to untreated when an appropriate level of disease damage appears on untreated check leaf segments (6-8 days after application).

The following compounds gave at 200 ppm give at least 50% disease control in this test when compared to untreated 35 control leaf disks under the same conditions, which show extensive disease development:

Q.001, Q.004, Q.005, Q.006, Q.007, Q.010, Q.011, Q.012, Q.013, Q.014, Q.015, Q.016, Q.017, Q.018, Q.019, Q.020, Q.021, Q.022, Q.023, Q.024, Q.025, Q.026, Q.027, Q.028, 40 Q.029, Q.030, Q.031, Q.032, Q.033, Q.034, Q.035, Q.036, Q.037, Q.038, Q.039, Q.040, Q.041, Q.042, Q.043, Q.044, Q.045, Q.046, Q.047, Q.048, Q.049, Q.050, Q.051, Q.052, Q.053, Q.054, Q.055, Q.057, Q.058, Q.059, Q.060, Q.062, Q.063, Q.064, Q.065, Q.066, Q.067, Q.068, Q.069, Q.070, 45 Q.071, Q.072, Q.073, Q.074, Q.075, Q.076, Q.077, Q.078, Q.079, Q.080, Q.081, Q.082, Q.084, Q.085, Q.086, Q.087, Q.088, Q.089, Q.090, Q.091, Q.092, Q.093, Q.094, Q.095, Q.097, Q.098, Q.099, Q.100, Q.101, Q.102, Q.103, Q.104, Q.105, Q.106, Q.108, Q.109, Q.110, Q.111, Q.112, Q.113, 50 Q.114, Q.115, Q.116, Q.117, Q.118, Q.119, Q.120, Q.121, Q.122, Q.123, Q.124, Q.125, Q.126, Q.127, Q.128, Q.129, Q.130, Q.131, Q.132, Q.133, Q.134, Q.135, Q.136, Q.140, Q.141, Q.142, Q.143, Q.144, Q.145, Q.146, Q.147, Q.148, Q.149, Q.151, Q.152, Q.153, Q.154, Q.155, Q.156, Q.158, 55 Q.160, Q.161, Q.162, Q.163, Q.164, Q.165, Q.166, Q.167, Q.168, Q.170, Q.171, Q.172, Q.174, Q.175, Q.176, Q.177, Q.178, Q.179, Q.180, Q.181, Q.183, Q.184, Q.185, Q.186, Q.187, Q.188, Q.191, Q.192, Q.193, Q.195, Q.196, Q.197, $Q.198,\,Q.199,\,Q.200,\,Q.201,\,Q.202,\,Q.203,\,Q.204,\,Q.205,\ \ 60$ Q.206, Q.207, Q.208, Q.209, Q.211, Q.212, Q.213, Q.214, Q.215, Q.216, Q.217, Q.218, Q.219, Q.220, Q.221, Q.222, Q.223, Q.224, Q.225, Q.226, Q.227, Q.228, Q.229, Q.230, Q.231, Q.233, Q.235, Q.238, Q.239, Q.240, Q.241, Q.242, Q.243, Q.244, Q.245, Q.246, Q.247, Q.248, Q.249, Q.250, Q.251, Q.255, Q.256, Q.260, Q.261, Q.262, Q.263, Q.265, Q.267, Q.269, Q.270, Q.271, Q.272, Q.273, Q.274, Q.275,

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Q.276, Q.277, Q.278, Q.280, Q.281, Q.282, Q.283, Q.284, Q.285, Q.286, Q.287, Q.288, Q.289, Q.290, Q.291, Q.292, Q.293, Q.294, Q.296, Q.297, Q.298, Q.299, Q.300, Q.301, Q.302, Q.303, Q.304, Q.305, Q.306, Q.307, Q.308, Q.309, Q.310, Q.312, Q.315, Q.316, Q.317, Q.318, Q.319, Q.320, Q.321, Q.322, Q.323, Q.324, Q.325, Q.326, Q.327, Q.329, Q.330, Q.331, Q.332, Q.333, Q.334, Q.335, Q.336, Q.337, Q.338, Q.339, Q.340, Q.341, Q.342, Q.343, Q.344, Q.345, Q.346, Q.347, Q.349, Q.350, Q.351, Q.352, Q.353, Q.354, Q.355, Q.356, Q.357, Q.358, Q.359, Q.360, Q.361, Q.364, Q.365, Q.367, Q.368, Q.369, Q.370, Q.371, Q.373, Q.374, Q.375, Q.376, Q.378, Q.380, Q.381, Q.382, Q.383, Q.384, Q.385, Q.386, Q.388, Q.389, Q.390, Q.391, Q.392, Q.393, Q.394, Q.397, Q.398, Q.400, Q.401
```

Puccinia recondita f. sp. tritici/Wheat/Leaf Disc Preventative (Brown Rust)

Wheat leaf segments cv. Kanzler were placed on agar in multiwell plates (24-well format) and sprayed with the formulated test compound diluted in water. The leaf disks were inoculated with a spore suspension of the fungus 1 day after application. The inoculated leaf segments were incubated at 19° C. and 75% rh under a light regime of 12 h light/12 h darkness in a climate cabinet and the activity of a compound was assessed as percent disease control compared to untreated when an appropriate level of disease damage appears in untreated check leaf segments (7-9 days after application).

The following compounds gave at 200 ppm gave at least 50% disease control in this test when compared to untreated control leaf disks under the same conditions, which show extensive disease development:

```
Q.001, Q.002, Q.003, Q.004, Q.005, Q.006, Q.007, Q.008,
Q.009, Q.010, Q.011, Q.012, Q.013, Q.014, Q.015, Q.016,
Q.017, Q.018, Q.019, Q.020, Q.021, Q.022, Q.023, Q.024,
Q.025, Q.026, Q.027, Q.028, Q.029, Q.030, Q.031, Q.032,
Q.033, Q.034, Q.035, Q.036, Q.037, Q.038, Q.039, Q.040,
Q.041, Q.042, Q.043, Q.044, Q.045, Q.046, Q.047, Q.048,
Q.049, Q.050, Q.051, Q.052, Q.053, Q.054, Q.055, Q.056,
Q.057, Q.058, Q.059, Q.060, Q.061, Q.062, Q.063, Q.064,
Q.065, Q.066, Q.067, Q.068, Q.069, Q.070, Q.071, Q.072,
Q.073, Q.074, Q.075, Q.076, Q.077, Q.078, Q.079, Q.080,
Q.081, Q.082, Q.083, Q.084, Q.085, Q.086, Q.087, Q.088,
Q.089, Q.090, Q.091, Q.092, Q.093, Q.094, Q.095, Q.096,
Q.097, Q.098, Q.099, Q.100, Q.101, Q.102, Q.103, Q.104,
Q.105, Q.106, Q.107, Q.108, Q.109, Q.110, Q.111, Q.112,
Q.113, Q.114, Q.115, Q.116, Q.117, Q.118, Q.119, Q.120,
Q.121, Q.122, Q.123, Q.124, Q.125, Q.126, Q.127, Q.128,
Q.129, Q.130, Q.131, Q.132, Q.133, Q.134, Q.135, Q.136,
Q.137, Q.138, Q.140, Q.141, Q.142, Q.143, Q.144, Q.145,
Q.146, Q.147, Q.148, Q.149, Q.150, Q.151, Q.152, Q.153,
Q.154, Q.155, Q.156, Q.157, Q.158, Q.159, Q.160, Q.161,
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Q.162, Q.163, Q.164, Q.165, Q.166, Q.167, Q.168, Q.169,
Q.170, Q.171, Q.172, Q.173, Q.174, Q.175, Q.176, Q.177,
Q.178, Q.179, Q.180, Q.181, Q.182, Q.183, Q.184, Q.185,
Q.186, Q.187, Q.188, Q.189, Q.190, Q.191, Q.192, Q.193,
Q.194, Q.195, Q.196, Q.197, Q.198, Q.199, Q.200, Q.201, 5
Q.202, Q.203, Q.204, Q.205, Q.206, Q.207, Q.208, Q.209,
Q.210, Q.211, Q.212, Q.213, Q.214, Q.215, Q.216, Q.217,
Q.218, Q.219, Q.220, Q.221, Q.222, Q.223, Q.224, Q.225,
Q.226, Q.227, Q.228, Q.229, Q.230, Q.231, Q.232, Q.233,
Q.234, Q.235, Q.236, Q.237, Q.238, Q.239, Q.240, Q.241,
Q.242, Q.243, Q.244, Q.245, Q.246, Q.247, Q.248, Q.249,
Q.250, Q.251, Q.252, Q.253, Q.254, Q.255, Q.256, Q.257,
Q.258, Q.259, Q.260, Q.261, Q.262, Q.263, Q.264, Q.265,
Q.266, Q.267, Q.268, Q.269, Q.270, Q.271, Q.272, Q.273,
Q.274, Q.275, Q.276, Q.277, Q.278, Q.279, Q.280, Q.281, 15
Q.282, Q.283, Q.284, Q.285, Q.286, Q.287, Q.288, Q.289,
Q.290, Q.291, Q.292, Q.293, Q.294, Q.295, Q.296, Q.297,
Q.298, Q.299, Q.300, Q.301, Q.302, Q.303, Q.304, Q.305,
Q.306, Q.307, Q.308, Q.309, Q.310, Q.311, Q.312, Q.313,
Q.314, Q.315, Q.316, Q.317, Q.318, Q.319, Q.320, Q.321, 20
Q.322, Q.323, Q.324, Q.325, Q.326, Q.327, Q.328, Q.329,
Q.330, Q.331, Q.332, Q.333, Q.334, Q.335, Q.336, Q.337,
Q.338, Q.339, Q.340, Q.341, Q.342, Q.343, Q.344, Q.345,
Q.346, Q.347, Q.348, Q.349, Q.350, Q.351, Q.352, Q.353,
Q.354, Q.355, Q.356, Q.357, Q.358, Q.359, Q.360, Q.361, 25
Q.362, Q.363, Q.364, Q.365, Q.366, Q.367, Q.368, Q.369,
Q.370, Q.371, Q.372, Q.373, Q.374, Q.375, Q.376, Q.377,
Q.378, Q.379, Q.380, Q.381, Q.382, Q.383, Q.384, Q.385,
Q.386, Q.387, Q.388, Q.389, Q.390, Q.391, Q.392, Q.393,
Q.394, Q.397, Q.398, Q.400, Q.401
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Puccinia recondita f. sp. tritici/Wheat/Leaf Disc Curative (Brown Rust)

Wheat leaf segments cv. Kanzler are placed on agar in multiwell plates (24-well format). The leaf segments are inoculated with a spore suspension of the fungus. Plates were 35 stored in darkness at 19° C. and 75% rh. The formulated test compound diluted in water was applied 1 day after inoculation. The leaf segments were incubated at 19° C. and 75% rh under a light regime of 12 h light/12 h darkness in a climate cabinet and the activity of a compound was assessed as percent disease control compared to untreated when an appropriate level of disease damage appears in untreated check leaf segments (6-8 days after application).

The following compounds gave at 200 ppm gaive at least 50% disease control in this test when compared to untreated 45 control leaf disks under the same conditions, which show extensive disease development:

```
Q.001, Q.004, Q.005, Q.006, Q.007, Q.010, Q.011, Q.012,
Q.013, Q.014, Q.015, Q.016, Q.018, Q.019, Q.020, Q.021,
Q.022, Q.023, Q.024, Q.025, Q.026, Q.027, Q.028, Q.029, 50
Q.030, Q.031, Q.032, Q.033, Q.034, Q.035, Q.036, Q.037,
Q.038, Q.039, Q.040, Q.041, Q.042, Q.043, Q.044, Q.045,
Q.046, Q.047, Q.048, Q.049, Q.050, Q.051, Q.052, Q.053,
Q.054, Q.055, Q.057, Q.058, Q.059, Q.060, Q.062, Q.063,
Q.064, Q.065, Q.066, Q.067, Q.068, Q.069, Q.070, Q.071, 55
Q.072, Q.073, Q.074, Q.075, Q.076, Q.077, Q.078, Q.079,
Q.080, Q.081, Q.082, Q.084, Q.085, Q.086, Q.087, Q.088,
Q.089, Q.090, Q.091, Q.092, Q.093, Q.094, Q.095, Q.096,
Q.097, Q.098, Q.099, Q.100, Q.101, Q.102, Q.103, Q.104,
Q.105, Q.106, Q.109, Q.110, Q.111, Q.112, Q.113, Q.114, 60
Q.115, Q.116, Q.117, Q.118, Q.119, Q.120, Q.121, Q.122,
Q.123, Q.124, Q.126, Q.127, Q.128, Q.129, Q.130, Q.131,
Q.132, Q.133, Q.134, Q.135, Q.136, Q.140, Q.141, Q.143,
Q.144, Q.145, Q.146, Q.147, Q.148, Q.149, Q.151, Q.152,
Q.153, Q.154, Q.155, Q.156, Q.158, Q.159, Q.160, Q.161, 65
Q.162, Q.163, Q.164, Q.165, Q.166, Q.167, Q.168, Q.169,
Q.170, Q.171, Q.172, Q.174, Q.175, Q.176, Q.177, Q.178,
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Q.179, Q.180, Q.181, Q.182, Q.183, Q.184, Q.185, Q.186,
Q.188, Q.191, Q.192, Q.193, Q.194, Q.195, Q.196, Q.197,
Q.198, Q.199, Q.200, Q.201, Q.203, Q.204, Q.205, Q.206,
Q.207, Q.208, Q.209, Q.211, Q.212, Q.213, Q.214, Q.215,
Q.216, Q.217, Q.218, Q.219, Q.220, Q.221, Q.222, Q.223,
Q.224, Q.225, Q.226, Q.227, Q.228, Q.229, Q.230, Q.231,
Q.232, Q.233, Q.235, Q.236, Q.238, Q.239, Q.240, Q.241,
Q.242, Q.243, Q.244, Q.246, Q.247, Q.248, Q.249, Q.250,
Q.251, Q.253, Q.254, Q.255, Q.256, Q.257, Q.258, Q.260,
Q.261, Q.262, Q.263, Q.265, Q.269, Q.270, Q.271, Q.273,
Q.274, Q.275, Q.276, Q.277, Q.278, Q.279, Q.280, Q.281,
Q.282, Q.283, Q.284, Q.285, Q.286, Q.287, Q.288, Q.289,
Q.290, Q.291, Q.292, Q.293, Q.294, Q.296, Q.297, Q.298,
Q.299, Q.300, Q.301, Q.302, Q.303, Q.304, Q.305, Q.306,
Q.307, Q.308, Q.309, Q.310, Q.311, Q.315, Q.316, Q.317,
Q.318, Q.319, Q.320, Q.321, Q.322, Q.323, Q.324, Q.325,
Q.326, Q.327, Q.329, Q.330, Q.331, Q.332, Q.333, Q.334,
Q.335, Q.336, Q.337, Q.338, Q.339, Q.340, Q.341, Q.342,
Q.344, Q.345, Q.346, Q.347, Q.348, Q.349, Q.350, Q.351,
Q.352, Q.353, Q.354, Q.355, Q.356, Q.357, Q.358, Q.359,
Q.360, Q.361, Q.362, Q.363, Q.364, Q.365, Q.366, Q.367,
Q.368, Q.369, Q.370, Q.371, Q.372, Q.373, Q.374, Q.375,
Q.376, Q.377, Q.378, Q.380, Q.381, Q.382, Q.383, Q.384,
Q.385, Q.386, Q.388, Q.389, Q.390, Q.391, Q.392, Q.393,
Q.394, Q.397, Q.398, Q.400, Q.401
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Pyrenophora teres/Barley/Leaf Disc Preventative (Net Blotch)

Barley leaf segments cv. Hasso were placed on agar in a multiwell plate (24-well format) and sprayed with the formulated test compound diluted in water. The leaf segments were inoculated with a spore suspension of the fungus 2 days after application. The inoculated leaf segments were incubated at 20° C. and 65% rh under a light regime of 12 h light/12 h darkness in a climate cabinet and the activity of a compound was assessed as disease control compared to untreated when an appropriate level of disease damage appears in untreated check leaf segments (5-7 days after application).

The following compounds gave at 200 ppm give at least 50% disease control in this test when compared to untreated control leaf disks under the same conditions, which show extensive disease development:

```
Q.001, Q.004, Q.005, Q.007, Q.011, Q.012, Q.013, Q.014,
Q.015, Q.016, Q.018, Q.019, Q.020, Q.021, Q.022, Q.023,
Q.024, Q.025, Q.026, Q.027, Q.028, Q.029, Q.032, Q.033,
Q.034, Q.035, Q.038, Q.039, Q.041, Q.042, Q.043, Q.044,
Q.046, Q.047, Q.052, Q.053, Q.054, Q.055, Q.057, Q.059,
Q.062, Q.063, Q.066, Q.067, Q.069, Q.070, Q.071, Q.074,
Q.075, Q.076, Q.079, Q.082, Q.086, Q.087, Q.088, Q.089,
Q.090, Q.091, Q.093, Q.095, Q.097, Q.099, Q.100, Q.101,
Q.102, Q.103, Q.105, Q.106, Q.110, Q.111, Q.113, Q.115,
Q.116, Q.117, Q.118, Q.119, Q.120, Q.121, Q.122, Q.124,
Q.125, Q.127, Q.128, Q.129, Q.131, Q.133, Q.136, Q.141,
Q.143, Q.144, Q.146, Q.148, Q.153, Q.154, Q.155, Q.158,
Q.160, Q.161, Q.162, Q.163, Q.164, Q.166, Q.167, Q.168,
Q.169, Q.170, Q.174, Q.175, Q.176, Q.178, Q.180, Q.183,
Q.184, Q.186, Q.191, Q.193, Q.195, Q.196, Q.197, Q.198,
Q.199, Q.200, Q.201, Q.202, Q.203, Q.204, Q.206, Q.207,
Q.208, Q.209, Q.211, Q.212, Q.214, Q.215, Q.216, Q.217,
Q.218, Q.219, Q.220, Q.221, Q.222, Q.223, Q.224, Q.225,
Q.226, Q.227, Q.228, Q.229, Q.231, Q.232, Q.233, Q.235,
Q.236, Q.237, Q.238, Q.240, Q.241, Q.242, Q.243, Q.244,
Q.245, Q.246, Q.247, Q.248, Q.249, Q.250, Q.251, Q.252,
Q.253, Q.255, Q.256, Q.260, Q.261, Q.262, Q.269, Q.275,
Q.277, Q.278, Q.280, Q.282, Q.284, Q.285, Q.286, Q.289,
Q.291, Q.292, Q.293, Q.298, Q.299, Q.301, Q.302, Q.304,
Q.308, Q.311, Q.315, Q.316, Q.320, Q.322, Q.324, Q.326,
Q.329, Q.334, Q.335, Q.336, Q.337, Q.340, Q.344, Q.346,
Q.349, Q.352, Q.353, Q.354, Q.355, Q.357, Q.358, Q.361,
```

0.0625

0.0625

0.0625

0.0625

0.03125

0.03125

0.03125

Q.135

rate ppm

0.625

0.3125

100

100

100

100

50

20

Activity

0

0

0

0

50

50

50

0

0

S?

1.25

0.625

0.3125

0.15625

1.25

0.625

0.3125

1.25

0.625

2,4-D

Q.363, Q.364, Q.366, Q.370, Q.371, Q.375, Q.376, Q.377, Q.378, Q.380, Q.382, Q.386, Q.389, Q.390, Q.391, Q.392, Q.393, Q.394, Q.398, Q.400

In the following Tables 'Activity (%)' means the assessed experimental activity (% disease control in this test when 5 compared to untreated control leaf disks under the same conditions, which show extensive disease development) and "P" is the expected value calculated (expected) activity according to the COLBY formula (see above). The column headed 'S?' indicates whether or not synergy was observed, with 'y' 10 meaning that synergy was observed.

In the following tables, compound (V) is N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, compound (VI) is 3-(difluoromethyl)-N-methoxy-1-methyl-15 N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-1H-pyrazole-4-carboxamide, compound (VII) is [3-(4-chloro-2-fluorophenyl)-5-(2,4-difluoro-phenyl)-isoxazol-4-yl]-pyridin-3-yl-methanol.

Monographella nivalis (syn. Microdochium nivale, Fusarium nivale), snow mould, foot rot of cereals

Conidia of the fungus from cryogenic storage were directly mixed into nutrient broth (PDB potato dextrose broth). After placing a (DMSO) solution of the test compounds into a microtiter plate (96-well format) the nutrient broth containing the fungal spores was added. The test plates were incubated at 24° C. and activity was determined visually after 72 hrs

Activity

(%)

S?

Compound

rate ppm

Q.135

rate ppm

|)- 2, ; | 20 | 0.625 0.625 0.625 0.625 0.625 0.625 0.3125 | 0.3125 2.5 1.25 0.625 0.3125 0.15625 1.25 | 0 100 90 90 90 100 20 | 50 50 50 50 50 50 | y y y y y |
|--------------|----------------|--|---|---|----------------------------------|-----------------------|
| y er a | | Q.135 rate ppm | Azoxystrobin rate ppm | Activity (%) | P | S? |
| g it | 25 | 0.125 0.0625 0.125 0.0625 | 0.00625 0.003125 0.0015625 0.003125 0.00625 | 70 0 70 20 0 90 100 | 70 70 0 | y y |
| _ | - - | 0.0625 Q.135 rate ppm | 0.0015625 Fenpropimorph rate ppm | Activity (%) | P | S? |
| : | . 35 | 0.03125 | 0.125 0.0625 0.03125 0.015625 | 20 0 0 0 0 | | |
| - | 4 0 | 0.03125 0.03125 0.03125 0.03125 0.03125 | 0.0178125 0.1078125 0.125 0.0625 0.03125 0.015625 0.0078125 | 0 100 90 90 70 90 | 20 20 20 20 20 20 | y y y y |
| - . | 45 - | Q.135 rate ppm | Bicyclopyrone rate ppm | Activity (%) | P | S? |
| ; | 50 | 0.0625 0.03125 0.0625 0.03125 0.0625 | 0.3125 0.15625 0.078125 0.15625 0.078125 0.3125 | 20 0 0 0 0 0 90 20 70 | 20 0 20 | y y y |
| ; | 55 | Q.135 rate ppm | Abamectin rate ppm | Activity (%) | P | S? |
| _ | 60 | 0.0625 0.0625 0.0625 0.0625 | 2.5 1.25 0.625 0.3125 0.15625 0.15625 0.3125 0.625 1.25 | 20 0 0 0 0 0 70 50 20 | 20 20 20 20 20 | y y y y |
| | 65 | 0.0625 | 2.5 | 100 | 20 | y |

| race ppin | rate ppin | (70) | • | ٠. | |
|--------------------|-------------|----------|----|----|------------|
| 0.0625 | | 20 | | | _ |
| 0.03125 | | 0 | | | |
| 0.03123 | | 0 | | | |
| 0.013023 | | 0 | | | |
| 0.0078123 | 0.0625 | 50 | | | 3 |
| | | | | | |
| 0.0625 | 0.03125 | 0 | 20 | | |
| 0.0625 | 0.03125 | 50 | 20 | У | |
| 0.03125 | 0.03125 | 50 | 0 | У | |
| 0.03125 | 0.0625 | 70 | 50 | У | |
| 0.015625 | 0.03125 | 20 | 0 | У | 4 |
| 0.015625 | 0.0625 | 70 | 50 | У | |
| 0.0078125 | 0.03125 | 70 | 0 | У | |
| Q.135 | Metconazole | Activity | | | _ |
| rate ppm | rate ppm | (%) | P | S? | |
| 0.0625 | | 70 | | | - 4 |
| 0.03125 | | 0 | | | |
| | 0.25 | Ō | | | |
| | 0.125 | Ō | | | |
| | 0.0625 | 0 | | | |
| | 0.03125 | 0 | | | |
| | 0.015625 | ŏ | | | 5 |
| 0.0625 | 0.25 | 100 | 70 | У | |
| 0.0625 | 0.125 | 100 | 70 | У | |
| 0.0625 | 0.0625 | 100 | 70 | y | |
| 0.0625 | 0.03125 | 100 | 70 | | |
| 0.0625 | 0.03123 | 100 | 70 | У | |
| | 0.013023 | 100 | 0 | У | |
| 0.03125 0.03125 | 0.123 | 70 | 0 | У | 5 |
| | | | | У | |
| 0.03125 | 0.03125 | 50 | 0 | У | |
| 0.03125 | 0.015625 | 20 | 0 | у | _ |
| | cis- | | | | |
| Q.135 | Jasmone | Activity | | | 6 |
| rate ppm | rate ppm | (%) | P | S? | _ |
| 0.0625 | | 50 | | | _ |
| 0.03125 | | 0 | | | |
| | 1.25 | 0 | | | |
| | 0.625 | 0 | | | |
| | 0.3125 | Õ | | | 6 |
| | 0.15625 | ŏ | | | |
| | 0.13023 | ~ | | | |

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| -continued | | | | | | -continued | | | | | |
|---|---|---|-------------------------------------|----------------------------|----------------|---|---|--|----------------------------------|----------------------------|--|
| Q.135 rate ppm | Thiamethoxam rate ppm | Activity (%) | P | S? | | 0.0625 0.03125 | 0.15625 1.25 | 90 20 | 50 0 | y y | |
| 0.125 0.0625 | 5 | 70 20 0 | | | 5 | Q.135 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? | |
| 0.125 0.125 0.0625 0.125 0.125 0.125 0.0625 | 2.5 0.625 0.3125 0.3125 0.625 0.3125 0.25 0.5 0.25 | 0 0 0 100 90 50 90 100 70 | 70 70 20 70 70 20 | y y y y y | 10 - 15 | 0.0625 0.03125 0.015625 0.0625 0.0625 0.0625 | 1.25 0.625 0.3125 0.15625 1.25 0.625 0.3125 | 70 0 0 0 0 0 0 0 0 100 100 | 70 70 70 70 | y y y | |
| Q.135 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | _ | 0.0625 0.03125 0.03125 | 0.15625 1.25 0.625 | 100 100 100 | 70 0 0 | y y y | |
| 0.0625 0.03125 | 0.25 0.125 | 70 0 0 0 | | | 20 _ | 0.03125 0.03125 0.03125 0.015625 | 0.3125 0.15625 0.625 | 50 20 20 | 0 0 0 | y y y | |
| | 0.0625 0.03125 0.015625 | 0 0 0 | | | _ | Q.135 rate ppm | Pyraclostrobin rate ppm | Activity (%) | P | S? | |
| 0.0625 0.0625 0.0625 0.03125 0.03125 0.0625 0.03125 | 0.015625 0.03125 0.0625 0.015625 0.03125 0.125 0.0625 | 90 100 100 50 20 100 50 | 70 70 70 0 0 70 0 | y y y y y y | 25 | 0.125 0.0625 0.125 0.0625 0.0625 | 0.003125 0.0015625 0.003125 0.003125 0.0015625 | 70 0 0 0 90 20 20 | 70 0 0 | y y y | |
| 0.0625 0.03125 | 0.25 0.125 | 100 70 | 70 0 | y y | 30 | Q.135 rate ppm | Mandipropamid rate ppm | Activity (%) | P | S? | |
| Q.135 rate ppm 0.0625 0.03125 0.0625 0.0625 0.0625 | 2.5 1.25 0.625 0.3125 0.625 | 70 0 0 0 0 0 0 0 0 0 70 | P 70 70 | S? | 35 | 0.125 0.0625 0.03125 0.125 0.125 0.0625 0.03125 | 0.0625 0.03125 0.0625 0.03125 0.0625 0.0625 | 70 20 0 0 0 90 90 90 20 50 | 70 70 20 0 | y y y | |
| 0.0625 0.03125 0.0625 | 1.25 0.625 2.5 | 90 20 90 | 70 0 70 | y y y | 40 | Q.135 rate ppm | Carbendazim rate ppm | Activity (%) | P | S? | |
| 0.03125 Q.135 rate ppm | 1.25 Flutriafol rate ppm | 20 Activity (%) | 0 P | y S? | - 45 | 0.125 0.0625 | 0.0625 0.03125 0.015625 | 70 20 0 0 | | | |
| 0.0625 | 0.25 0.125 | 70 0 0 | | | | 0.125 0.0625 0.0625 | 0.0625 0.03125 0.015625 | 90 50 50 | 70 20 20 | у у у | |
| 0.0625 0.0625 0.0625 | 0.0625 0.03125 0.25 0.125 0.0625 | 0 0 100 90 90 | 70 70 70 | y y y | 50 | Q.135 rate ppm | Copper hydroxide rate ppm | Activity (%) | P | S? | |
| 0.0625 Q.135 | 0.03125 Trinexapacethyl | 90 Activity | 70 | У | - 55 | 0.125 0.0625 | 5 2.5 | 70 20 0 | | | |
| 0.0625 0.03125 0.0625 0.0625 0.0625 0.0625 0.0625 | 2.5 1.25 0.625 0.3125 0.12625 2.5 1.25 0.625 0.3125 | (%) 50 0 0 0 0 0 0 100 90 70 90 | 50 50 50 50 | y y y y | 60 | 0.125 0.125 0.125 0.0625 0.0625 0.125 0.125 | 1.25 0.625 0.3125 0.15625 0.3125 0.625 1.25 0.15625 0.3125 2.5 | 0 0 0 0 100 100 100 70 70 100 | 70 70 70 20 20 70 | у у у у у у | |

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| -continue | |
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| Q.135 rate ppm | Manganese oxide rate ppm | Activity (%) | P | S? | | Q.113 rate ppm | Metconazole rate ppm | Activity (%) | P | S? |
|--|---|--|---|---------------------------------|----------------|--|---|--|--------------------------------------|---------------------------------|
| 0.0625 | 2.5 1.25 | 20 0 0 | | | _ 5 | 1 0.5 0.25 0.125 | | 50 20 0 0 | | |
| 0.0625 0.0625 0.0625 0.0625 0.0625 | 0.625 0.3125 0.15625 0.15625 0.3125 0.625 1.25 2.5 | 0 0 0 70 50 20 70 90 | 20 20 20 20 20 20 | y y y | 10 | 1 1 1 0.5 | 1 0.5 0.25 0.125 1 0.5 0.25 | 20 0 0 0 100 100 100 | 60 50 50 36 | y y y y |
| Q.135 rate ppm | Mesotrione rate ppm | Activity (%) | P | S? | - 15 | 0.5 0.5 0.5 | 0.5 0.25 0.125 | 100 90 50 | 20 20 20 | y y y |
| 0.0625 0.03125 | 2.5 1.25 0.625 0.3125 0.15625 | 20 0 0 0 0 0 0 | | | 20 | 0.25 0.25 0.25 0.25 0.125 0.125 0.125 | 1 0.5 0.25 0.125 0.5 0.25 0.125 | 100 70 50 20 50 20 20 20 | 20 0 0 0 0 0 0 | y y y y y |
| 0.0625 0.0625 | 0.078125 0.15625 0.3125 | 0 70 70 | 20 20 | y y | 25 | Q.113 rate ppm | Penflufen rate ppm | Activity (%) | P | S? |
| 0.0625 0.03125 0.03125 0.03125 0.03125 0.0625 0.03125 0.0625 0.03125 | 0.625 0.078125 0.15625 0.3125 1.25 0.625 2.5 1.25 | 50 20 20 0 70 20 90 20 | 20 0 0 0 20 0 20 0 | y y y y y y y | 30 | 1 0.5 0.25 0.125 1 0.5 0.5 | 1 0.5 1 1 0.5 | 20 2 2 2 2 20 0 50 50 20 | 36 20 0 | у у у |
| Q.135 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? | - 35 | 0.25 0.25 0.125 | 1 0.5 0.5 | 50 20 20 | 20 0 0 | y y y |
| 0.0625 0.03125 | 0.0125 | 70 0 | | | | Q.113 rate ppm | Bixafen rate ppm | Activity (%) | P | S? |
| 0.0625 0.0625 0.0625 0.03125 0.03125 | 0.0125 0.00625 0.003125 0.0015625 0.0015625 0.003125 0.00625 0.0015625 0.003125 | 0 0 0 0 100 100 100 20 20 | 70 70 70 0 0 | y y y y | 40 | 0.25 0.125 0.0625 0.25 0.125 0.0625 | 0.25 0.25 0.25 0.25 | 0 0 0 20 50 50 | 20 20 20 | y y y |
| 0.0625 0.03125 0.03125 | 0.0125 0.00625 0.0125 | 100 100 100 | 70 0 0 | y y y | 45 — | Q.113 rate ppm | Fenpropimorph rate ppm | Activity (%) | P | S? |
| Q.113 rate ppm | Flutriafol rate ppm | Activity (%) | P | y S? | 50 | 0.5 0.25 | 1 0.5 | 20 0 20 0 | | |
| 2 1 0.5 0.25 | 2 1 0.5 0.25 2 1 0.5 2 | 70 20 20 0 0 0 0 0 0 100 100 90 90 | 70 70 70 20 20 | y y y y | 55 | 0.5 0.5 0.5 0.5 0.25 0.25 0.25 0.25 0.25 | 0.25 0.125 0.0625 1 0.5 0.25 0.125 1 0.5 0.25 0.125 0.125 0.125 | 0 0 0 700 100 100 100 100 90 70 20 | 36 20 20 20 20 0 0 | y y y y y y y |
| 1 1 0.5 | 0.5 0.25 2 | 70 50 50 | 20 20 20 20 | у у у у | _ | Q.113 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| 0.25 | 1 | 20 | 0 | у | 65 | 0.5 0.25 | | 0 | | |

| -continued | | | | | | -continued | | | | | |
|--|---|---|-----------------------------------|----------------------------|-------------|---|---|---|---------------------------------------|-----------------------|--|
| 0.125 | 0.0125 | 0 | | | | 0.0078125 0.00390625 | 0.003125 0.0015625 | 50 20 | 20 | у | |
| 0.5 0.25 0.125 | 0.0125 0.0125 0.0125 | 90 50 20 | 0 0 0 | y y y | 5 | Q.113 rate ppm | Abamectin rate ppm | Activity (%) | P | S? | |
| Q.113 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | _ | 2 1 0.5 | | 70 20 0 | | | |
| 2 1 0.5 0.25 | 1 0.5 0.25 0.125 0.5 1 0.25 | 70 20 0 0 20 0 0 0 0 100 100 | 70 76 20 | y y y | 15 | 2 1 2 1 1 0.5 0.5 | 20 10 5 10 5 20 10 20 10 20 | 50 0 0 100 50 100 50 100 20 70 | 70 20 85 20 60 0 50 | y y y y y | |
| 1 1 0.5 | 0.5 1 0.125 | 100 100 20 | 20 36 0 | y y y | 20 _ | Q.113 rate ppm | Mesotrione rate ppm | Activity (%) | P | S? | |
| 0.5 0.5 0.25 0.25 0.5 0.5 0.25 0.25 | 0.25 0.5 0.125 0.25 1 0.5 | 50 90 20 20 100 50 90 | 0 0 0 0 20 0 20 | y y y y y y | 25 | 1 0.5 1 1 0.5 | 5 2.5 2.5 5 2.5 | 20 0 0 0 50 50 50 20 | 20 20 0 | y y y | |
| Q.113 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? | 30 _ | Q.062 rate ppm | Compound (V) rate ppm | Activity (%) | P | S? | |
| 1 0.5 0.25 0.125 1 1 1 0.5 0.5 | 10 5 2.5 1.25 10 5 2.5 10 5 | 50 20 0 0 0 0 0 0 0 100 100 90 70 | 50 50 50 20 20 | y y y y y | 35 | 0.0625 0.03125 0.015625 0.0625 0.03125 0.015625 0.03125 0.015625 | 0.125 0.0625 0.03125 0.125 0.0625 0.03125 0.125 0.0625 | 0 0 0 70 50 0 100 70 20 90 | 70 50 0 70 50 | у у у у у | |
| 0.5 0.5 0.25 0.25 | 2.5 1.25 10 5 | 50 50 50 50 | 20 20 0 0 | y y y y | 40 | Q.062 rate ppm | Compound (VI) rate ppm | Activity (%) | P | S? | |
| 0.25 0.25 0.125 0.125 | 2.5 1.25 5 2.5 | 50 20 20 20 20 | 0 0 0 0 | y y y y | 45 | 0.03125 0.015625 0.03125 | 0.125 0.0625 0.125 | 0 0 50 0 70 | 50 | v | |
| Q.113 rate ppm | Azoxystrobin rate ppm | Activity (%) | P | S? | _ | 0.03125 0.03125 0.015625 | 0.0625 0.0625 | 20 20 | 0 | у у у | |
| 0.25 0.125 0.0625 0.03125 | | 0 0 0 0 | | | 50 - | Q.062 rate ppm | Chlorothalonil rate ppm | Activity (%) | P | S? | |
| 0.25 0.125 0.0625 0.03125 | 0.00625 0.00625 0.00625 0.00625 0.00625 | 50 70 70 50 100 | 50 50 50 50 | y y | 55 | 0.5 0.25 0.125 | 0.125 0.0625 0.03125 | 50 20 0 70 20 0 | | | |
| Q.113 rate ppm | Cyprodinil rate ppm | Activity (%) | P | S? | – 60 | 0.25 0.5 0.125 | 0.0625 0.125 0.0625 | 50 100 50 | 36 85 20 | y y y | |
| 0.015625 0.0078125 0.00390625 | | 0 0 0 | | | _ | 0.125 Q.062 | 0.03125 Flutriafol | 20 Activity | 0 | У | |
| 0.015625 0.0078125 | 0.003125 0.0015625 0.003125 0.0015625 | 20 0 50 20 | 20 0 | y y | 65 | 0.5 0.25 | rate ppm | 50 20 | Р | S? | |

| | -continued | 1 | | | | | -continued | l | | |
|---|---|--|--|--------------------------------------|---------------------|--|--|---|--|----------------------------|
| 0.125 | 0.5 | 0 | | | | Q.062 rate ppm | Fenpropimorph rate ppm | Activity (%) | P | S? |
| 0.5 0.5 0.5 0.25 0.25 0.25 0.25 0.125 0.125 0.125 0.125 | 0.25 0.125 0.0625 0.5 0.25 0.125 0.5 0.25 0.125 0.0625 0.5 0.25 0.125 0.5 0.625 | 0 0 90 90 90 50 50 50 20 20 20 | 50 50 50 20 20 20 20 0 0 | y y y y y y y y | 10 | 2 1 2 2 2 2 1 1 1 1 | 2 1 0.5 0.25 2 1 0.5 2 1 0.5 0.25 | 20 0 20 0 0 0 100 90 70 70 50 20 | 36 20 20 20 0 0 | у у у у у у |
| Q.062 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? | - - | Q.062 rate ppm | Abamectin rate ppm | Activity (%) | P | S? |
| 0.5 0.25 0.125 | 10 5 2.5 1.25 0.625 | 70 20 0 0 0 0 0 0 | 70 | V | 20 | 1 1 1 1 0.5 0.5 | 20 10 5 5 10 20 10 20 | 50 50 0 0 90 100 100 70 | 70 70 85 50 75 | у у у у у |
| 0.5 0.5 0.5 | 5 2.5 1.25 | 100 100 100 | 70 70 70 | y y y y | _ | Q.062 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? |
| 0.25 0.25 0.25 0.25 0.25 0.125 0.125 0.125 0.125 | 10 5 2.5 1.25 0.625 5 2.5 1.25 0.625 cis-Jasmone | 100 100 90 70 70 70 70 50 20 | 20 20 20 20 20 0 0 0 | y y y y y y y | 30 35 - 40 | 0.5 0.25 0.125 0.0625 0.5 0.5 0.5 0.25 | 1 0.5 0.25 0.125 0.0625 0.125 0.25 0.5 0.125 | 50 20 0 0 20 0 0 0 0 0 70 100 100 50 | 50 50 50 20 | y y y y |
| 0.25 | rate ppm | 20 | P | S? | - | 0.25 0.5 0.125 | 0.25 1 0.0625 | 70 100 20 | 20 60 0 | y y y |
| 0.125 0.25 0.25 | 5 2.5 1.25 0.625 5 2.5 | 0 0 0 0 0 0 50 | 20 20 | y y | 45 | 0.125 0.25 0.125 0.0625 0.25 0.125 0.0625 | 0.125 0.5 0.25 0.125 1 0.5 0.25 | 20 100 50 20 100 70 20 | 0 20 0 0 36 0 | y y y y y y |
| 0.25 0.25 0.125 | 1.25 0.625 5 | 50 50 50 | 20 20 0 | у у у | 50 | Q.062 rate ppm | Metconazole rate ppm | Activity (%) | P | S? |
| 0.125 0.125 | 2.5 1.25 | 50 50 | 0 | y y | _ | 0.5 0.25 0.125 | | 50 20 0 | | |
| Q.062 rate ppm | Penflufen rate ppm | Activity (%) | P | S? | 55 | 0.0625 | 1 0.5 | 0 20 0 | | |
| 2 1 0.5 0.25 2 1 0.5 0.25 | 1 0.5 1 0.5 1 0.5 | 20 0 0 0 20 0 50 20 50 20 | 36 0 20 0 | y y y y | 60 | 0.5 0.5 0.5 0.5 0.25 0.25 0.25 0.25 0.25 | 0.25 0.125 0.0625 1 0.5 0.25 0.125 1 0.5 0.25 0.125 0.25 0.125 | 0 0 0 100 100 70 100 100 100 90 20 | 60 50 50 50 36 20 20 20 | y y y y y y |

| | 095 | | | | | | 090 | 1 | | |
|---|--|---|--|---|----------------|---|---|---|---------------------------------|-----------------------|
| | -continued | | | | _ | | -continu | | | |
| 0.125 0.125 0.125 0.0625 | 0.5 0.25 0.125 0.25 | 90 50 20 20 | 0 0 0 0 | y y y y | 5 | 0.0625 0.5 0.25 0.125 | 0.0125 0.0125 0.0125 0.0125 | 0 0 100 100 50 | 50 20 0 | y y y |
| Q.062 rate ppm | Trinexapacethyl rate ppm | Activity (%) | P | S? | | 0.0625 | 0.0125 | 20 | 0 | ý |
| 0.5 0.25 | | 70 20 | | | 10 | Q.062 rate ppm | Glufosinate rate ppm | Activity (%) | P | S? |
| 0.125 0.5 0.5 0.5 | 5 2.5 1.25 0.625 5 2.5 1.25 | 0 0 0 0 0 90 90 90 | 70 70 70 | y y y | 15 | 0.125 0.125 0.125 0.125 | 5 2.5 1.25 1.25 2.5 5 | 0 0 0 0 20 20 20 | 0 0 0 | y y y |
| 0.25 0.25 0.25 0.125 0.125 | 5 1.25 0.625 5 2.5 | 50 50 50 20 20 | 20 20 20 0 0 | y y y y | 20 | Conidia of the mixed into nutri | rea (Gray mould) e fungus from cryo ient broth (PDB p | otato dextr | ose bro | oth). After |
| Q.062 rate ppm | 2,4-D rate ppm | Activity (%) | P | S? | | microtiter plate | SO) solution of (96-well format) t | he nutrient | broth c | ontaining |
| 0.5 0.25 0.125 | | 70 20 0 | | | 25 | | s was added. The activity was determ | | | |
| | 10 5 2.5 | 0 0 0 | | | | Q.135 rate ppm | Fluxapyroxad rate ppm | Activity (%) | P | S? |
| 0.5 0.5 0.5 0.5 0.25 0.25 0.25 0.25 0.25 0.125 0.125 0.125 | 1.25 0.625 10 5 2.5 1.25 10 5 2.5 1.25 0.625 5 2.5 1.25 | 0 90 90 90 90 50 50 50 50 20 20 | 70 70 70 70 20 20 20 20 0 0 | y y y y y y y y y | 30 35 40 | 0.03125 0.015625 0.0078125 0.00390625 0.03125 0.015625 0.0078125 0.015625 0.0078125 | 0.0625 0.03125 0.015625 0.0078125 0.0625 0.03125 0.015625 0.0078125 0.0625 0.03125 | 0 0 0 0 50 20 20 0 70 50 50 20 | 50 20 20 0 50 20 | y y y y y |
| Q.062 rate ppm | Pyraclostrobin rate ppm | Activity (%) | P | S? | | 0.00390625 | 0.015625 Compound | 50 | 20 | у |
| 0.0625 0.03125 0.015625 | | 0 0 0 | | | 45 | Q.135 rate ppm | (V) rate ppm | Activity (%) | P | S? |
| 0.0625 0.03125 0.03125 0.015625 | 0.0125 0.00625 0.0125 0.0125 0.00625 0.00625 | 50 0 70 70 20 20 | 50 50 0 | у у у у | 50 | 0.03125 0.015625 0.0078125 | 0.125 0.0625 0.03125 0.015625 0.03125 | 0 0 0 70 70 50 20 | 50 | |
| Q.062 rate ppm | Mesotrione rate ppm | Activity (%) | P | S? | _ | 0.0078125 0.03125 0.015625 | 0.015625 0.125 0.0625 | 50 90 70 | 20 70 70 | y y y |
| 1 | 20 10 | 70 0 0 | | | 55 | 0.0078125 Q.135 | 0.03125 Flutriafol | 70 Activity | 50 | у |
| 1 1 1 | 5 5 10 20 | 0 90 90 90 | 70 70 70 | y y y | 60 | 1 0.5 0.25 | rate ppm | 50 20 0 | P | S? |
| Q.062 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? | _ | 0.125 | 1 0.5 | 0 0 0 | | |
| 0.5 0.25 0.125 | | 50 20 0 | | | 65 | 1 1 | 0.25 0.125 1 0.5 | 0 0 100 100 | 50 50 | y y |

| | -continu | ed | | | | | -continu | ed | | |
|--|--|---|--|---------------------------------|----------------|---|--|---|--|--------------------------------------|
| 1 0.5 | 0.25 | 100 90 | 50 20 | y y | | Q.135 rate ppm | Picoxystrobin rate ppm | Activity (%) | P | S? |
| 0.5 0.5 0.5 0.25 0.25 0.25 0.25 0.25 | 0.5 0.25 0.125 1 0.5 0.25 0.125 0.5 | 90 90 70 70 50 50 50 20 | 20 20 20 0 0 0 0 | y y y y y y y | 5 | 1 0.5 0.25 0.125 | 2 1 0.5 0.25 | 20 0 0 0 50 50 50 50 | | |
| Q.135 rate ppm | Metconazole rate ppm | Activity (%) | P | S? | _ | 1 1 1 | 0.23 2 1 0.5 | 90 90 90 | 60 60 60 | y y |
| 0.125 0.0625 0.03125 0.125 0.0625 0.0625 0.03125 | 0.03125 0.015625 0.03125 0.03125 0.015625 0.03125 | 0 0 0 0 0 70 50 20 | 0 0 0 0 | y y y y | 15 | 0.5 0.5 0.5 0.5 0.5 0.25 0.25 0.25 0.125 0.125 | 0.5 2 1 0.5 0.25 1 0.58 0.25 0.5 0.25 | 90 90 70 70 70 70 70 70 70 | 50 50 50 50 50 50 50 50 50 50 | y y y y y y y y |
| Q.135 rate ppm | cis- Jasmone rate ppm | Activity (%) | P | S? | | Q.135 rate ppm | Fenpropimorph rate ppm | Activity (%) | P | S? |
| 1 0.5 0.25 1 1 0.5 0.5 0.5 0.25 0.25 | 5 2.5 1.25 0.625 5 2.5 2.5 1.25 1.25 0.625 | 50 20 0 0 0 0 0 0 0 90 90 50 50 20 20 | 50 50 20 20 0 | y y y y y | 25 30 35 | 1 0.5 0.25 0.125 0.0625 1 0.5 0.5 0.25 0.25 | 0.25 0.125 0.0625 0.25 0.25 0.125 0.125 0.125 0.0625 | 50 20 0 0 0 0 0 0 100 100 100 100 100 | 50 20 20 0 0 | y y y y y |
| Q.135 rate ppm | 2,4-D rate ppm | Activity (%) | P | S? | - - | 0.125 0.125 0.125 0.0625 0.0625 | 0.25 0.125 0.0625 0.25 0.125 | 100 100 70 90 70 | 0 0 0 0 | y y y y |
| 0.5 | 10 5 2.5 | 20 0 0 0 | | | 40 - | 0.0625 Q.135 rate ppm | 0.0625 Bicyclopyrone rate ppm | Activity (%) | 0 P | у S? |
| 1 1 0.5 0.5 0.5 0.5 | 10 5 2.5 10 5 2.5 1.25 | 90 100 90 50 50 50 | 50 50 50 20 20 20 20 | y y y y y y | 4 5 | 1 0.5 | 5 2.5 1.25 2.5 5 | 50 20 0 0 0 70 70 | 50 50 | у |
| Q.135 rate ppm | Pyraclostrobin rate ppm | Activity (%) | P | S? | 50 | 0.5 0.5 | 1.25 2.5 | 50 50 | 20 20 | y y y |
| 1 0.5 0.25 | | 20 0 0 | | | _ | Q.135 rate ppm | Thiamethoxam rate ppm | Activity (%) | P | S? |
| 1 1 1 1 0.5 0.5 | 0.2 0.1 0.05 0.025 0.2 0.1 0.05 0.025 0.2 0.1 | 20 0 0 0 70 50 50 50 50 | 36 20 20 20 20 20 | y y y y | 55 | 1 0.5 0.25 1 0.5 0.25 | 2.5 1.25 0.625 2.5 1.25 0.625 | 50 20 0 0 0 0 0 70 50 20 | 50 20 0 | у у у |
| 0.5 0.5 0.25 | 0.05 0.025 0.1 | 20 20 20 | 0 0 0 | y y y y | - | Q.135 rate ppm | Mesotrione rate ppm | Activity (%) | P | S? |
| 0.25 | 0.05 | 20 | 0 | у | 65 | 1 | | 50 | | |

| 10 | | -continue | ed | | | | | -continue | ed | | |
|--|--|---|---|-------------------------------|----------------------------|-------------|--|--|--|---|---------------------------------|
| 2.5 | 0.25 | | 0 | | | | | | | | y y |
| 1 | | 2.5 1.25 0.625 | 0 0 | | | 5 - | - | | | P | S? |
| rate ppm | 1 0.5 0.5 0.25 0.25 | 5 1.25 2.5 0.625 1.25 | 70 50 50 20 20 | 50 20 20 0 0 | y y y y | 10 | 0.5 | 10 5 2.5 | 20 0 0 0 0 0 | | |
| 2 | | | | P | S? | 15 | | 20 | 90 | | у |
| O.5 | 1 0.5 0.25 0.125 | 0.25 0.125 0.0625 0.5 0.25 | 50 20 0 0 50 0 0 0 100 100 | 20 | У | | 1 1 0.5 0.5 0.5 0.5 0.5 0.5 0.25 | 5 2.5 20 10 5 2.5 1.25 10 | 90 90 70 50 50 50 50 20 | 50 50 20 20 20 20 20 20 0 | y y y y y y y |
| 0.25 | 0.5 0.5 | 0.125 0.25 | 70 90 | 20 20 | y y | | | | | P | S? |
| Comparison Com | 0.25 0.25 0.25 0.125 0.125 0.25 0.125 0.125 | 0.0625 0.125 0.25 0.0625 0.125 0.5 0.25 | 50 70 70 20 20 90 50 70 | 0 0 0 0 0 50 | y y y y y y | | 0.25 0.125 0.0625 0.5 0.5 | 1.25 0.625 2.5 1.25 | 0 0 0 0 0 0 0 100 | 20 | y y |
| 2 | 2 1 0.5 | 20 10 5 | 70 20 0 0 0 0 | | S? | 40 | 0.25 0.25 0.125 0.125 0.125 0.125 0.0625 | 1.25 0.625 2.5 1.25 0.625 2.5 | 90 70 100 70 50 | 0 0 0 0 0 | y y y y y y |
| 1 20 50 20 y 2 50 0.5 10 20 0 y 0.5 0 0.5 20 20 0 y 0.5 0 Q.135 Chlorotalonil rate ppm Activity rate ppm 0.22 20 0.5 20 0.05 0 0.05 0 0.25 0 0 0.025 0 0 0.25 0 0 0.025 0 0 0.025 0 0.125 0 0 0 0.025 0 0 0 0.025 0 0 0 0.025 0 0 0 0 0 0 0.025 0 | 2 1 1 | 20 5 10 | 90 50 50 | 70 20 20 | y y y | 45 | Q.135 | Azoxystrobin | Activity | | S? |
| Q.135 Chlorotalonil rate ppm Activity rate ppm P S? 0.2 20 0.5 20 0.05 0 0.05 0 0.25 0 2 0.1 90 50 0.125 0 55 2 0.05 70 50 0.0625 0 1 0.2 70 36 0.0625 0 1 0.1 50 20 0.0625 0 1 0.05 50 20 0.5 0.125 0 1 0.05 50 20 0.5 0.25 90 36 y 1 0.05 50 20 0.5 0.125 50 20 y 60 0.5 0.2 50 20 0.5 0.125 50 20 y 0.5 0.1 50 20 0.25 0.25 90 20 y 0.5 0.1 50 < | 1 0.5 | 20 10 | 50 20 | 20 0 | y y | | 1 0.5 | | 20 0 | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | P | S? | - 50 | 0.23 | 0.1 | 20 0 | | |
| 0.5 0.25 90 36 y 0.5 0.2 50 20 0.5 0.2 50 20 0.25 0.25 0 | 0.25 0.125 0.0625 | 0.125 0.0625 | 0 0 0 20 0 | 26 | | 55 | 2 1 1 1 | 0.025 0.1 0.05 0.2 0.1 0.05 | 0 90 70 70 50 | 50 36 20 20 | y y y y y |
| 0.125 | 0.5 0.25 0.25 0.25 0.125 0.125 0.125 | 0.125 0.25 0.125 0.0625 0.25 0.125 0.0625 | 50 90 50 20 50 50 50 | 20 20 0 0 20 0 | y y y y y y | 60 | 0.5 0.5 0.5 0.5 0.5 | 0.2 0.1 0.05 0.025 0.1 | 50 50 20 20 50 | 20 0 0 0 0 | y y y y y y |

| | 701 | | | Í | ĺ | | 702 | | | |
|--|--|---|---|----------------------------|------------------|--|--|--|--|---------------------------------|
| | -continue | ed | | | | | -continu | ed | | |
| Q.135 rate ppm | Trifloxystrobin rate ppm | Activity (%) | P | S? | | 0.125 | 0.05 | 0 50 | | |
| 0.5 0.25 0.5 0.5 0.25 0.25 0.25 0.25 | 0.1 0.05 0.025 0.0125 0.025 0.0125 0.1 0.05 0.025 0.0125 | 20 0 50 50 20 0 50 50 50 50 50 50 20 | 36 20 50 50 20 | y y y y | 10 | 2 1 1 0.5 0.5 0.5 0.5 0.25 0.25 0.25 0.125 | 0.025 0.0125 0.00625 0.005 0.025 0.05 0.0125 0.025 0.005 0.00625 0.0125 0.025 0.025 | 0 0 100 100 100 90 100 50 70 90 20 | 85 20 60 20 20 60 0 0 | y y y y y y y |
| Q.135 rate ppm | Fludioxonil rate ppm | Activity (%) | P | S? | - - | 0.125 0.125 0.125 0.125 | 0.05 0.025 0.05 | 100 70 100 | 50 0 50 | y y y |
| 0.25 0.125 0.0625 0.03125 | | 0 0 0 0 | | | 20 | Q.135 rate ppm | Glufosinate rate ppm | Activity (%) | P | S? |
| 0.25 0.125 0.125 0.0625 0.0625 0.03125 | 0.0625 0.03125 0.0625 0.0625 0.03125 0.0625 0.03125 0.0625 0.03125 | 70 0 100 100 50 100 50 100 50 | 70 70 0 70 0 70 0 | y y y y y y | 25 | 1 0.5 0.25 | 20 10 5 2.5 2.5 5 2.5 | 20 0 0 0 0 0 0 0 0 50 50 50 20 | 20 20 0 | y y y |
| Q.135 rate ppm | Copper hydroxide rate ppm | Activity (%) | P | S? | 30 | 0.5 0.5 0.5 0.5 | 20 10 20 10 | 50 20 20 20 20 | 20 0 0 0 | y y y y |
| 1 0.5 | 5 | 50 20 0 | | | 35 - | Q.135 rate ppm | Procymidone rate ppm | Activity (%) | P | S? |
| 1 1 0.5 0.5 | 2.5 1.25 2.5 5 1.25 2.5 Abamectin | 0 0 70 70 50 50 Activity | 50 50 20 20 | y y y y | 40 | 1 0.5 0.25 1 0.5 0.25 | 2.5 1.25 2.5 1.25 2.5 | 20 0 0 50 0 100 50 90 | 60 0 50 | y y y |
| rate ppm | rate ppm | 50 | P | S? | | Q.113 rate ppm | Fluxapyroxad rate ppm | Activity (%) | P | S? |
| 0.5 0.25 1 1 1 0.5 0.5 0.5 1 0.25 | 20 10 5 2.5 1.25 2.5 5 10 1.25 2.5 5 20 1.25 | 20 0 0 0 0 0 0 0 90 90 70 50 70 20 | 50 50 50 20 20 20 50 0 | y y y y y y | 50 | 0.03125 0.015625 0.0078125 0.00390625 0.00390625 0.015625 0.0078125 0.00390625 0.0078125 0.00390625 | 0.0625 0.03125 0.015625 0.0078125 0.0625 0.03125 0.0078125 0.0078125 0.0625 0.03125 0.015625 | 0 0 0 0 50 50 20 20 70 70 50 20 70 50 | 50 50 20 20 50 50 20 | у у у у у |
| 0.25 0.5 0.25 | 2.5 10 5 | 20 50 50 | 0 20 0 | y y y | - | Q.113 rate ppm | Pyraclostrobin rate ppm | Activity (%) | P | S? |
| 0.5 0.25 | 20 10 | 50 50 | 20 0 | y y | 60 – - | 2 1 | | 0 | | |
| Q.135 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? | - | 0.5 | 2 0.25 | 0 70 50 | | |
| 0.5 0.25 | | 20 0 | | | 65 | 2 1 | 2 2 | 90 90 | 70 70 | y y |

0.125

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|---|--|---|-------------------------------|-----------------------|--------------------|---|--|---|--|----------------------------|
| 1 0.5 | 0.25 | 70 90 | 50 70 | y y | - ₅ | 0.0625 0.03125 0.015625 | 0.0625 0.0625 0.0625 | 90 90 90 | 70 70 70 | y y y |
| Q.113 rate ppm | Chlorotalonil rate ppm | Activity (%) | P | S? | _ | 0.015625 0.015625 0.0078125 0.0078125 | 0.015625 0.03125 0.0078125 0.015625 | 70 70 50 70 | 50 70 20 50 | y y y |
| 0.5 0.25 | 0.25 | 0 0 20 | | | 10 | Q.113 rate ppm | Azoxystrobin rate ppm | Activity (%) | P | S? |
| 1 0.5 0.25 | 0.25 0.25 0.25 | 50 70 70 | 20 20 20 | y y y | <u>-</u> | 0.5 0.25 0.125 | | 0 0 0 | | |
| Q.113 rate ppm | Flutriafol rate ppm | Activity (%) | P | S? | 15 | 0.0625 0.03125 | 0.25 | 0 0 20 | | |
| 2 2 2 | 2 1 2 | 0 0 0 0 50 20 | 0 0 | y y | 20 | 0.5 0.25 0.125 0.125 0.0625 | 0.125 0.125 0.125 0.125 0.125 0.25 0.125 | 0 20 20 20 50 20 | 0 0 0 20 0 | y y y y |
| Q.113 rate ppm | Fludioxonil rate ppm | Activity (%) | 0 P | у S? | | 0.0625 0.03125 Q.113 | 0.25 0.125 Picoxystrobin | 50 20 Activity | 20 0 | у |
| 0.25 | rate ppin | 0 | 1 | - 5: | - ₂₅ _ | rate ppm | rate ppm | (%) | P | S? |
| 0.125 0.0625 0.03125 0.25 0.125 0.125 0.0625 0.0625 0.03125 | 0.0625 0.03125 0.03125 0.0625 0.03125 0.0625 0.03125 0.0625 | 0 0 70 0 70 20 90 20 20 Activity | 70 0 70 70 0 0 | y y y y | 30 — 35 | 2 1 0.5 2 2 2 2 1 1 0.5 | 2 1 0.5 2 1 0.5 2 1 2 | 0 0 50 50 50 70 70 70 70 | 50 50 50 50 50 50 | у у у у у |
| rate ppm | rate ppm | (%) | P | S? | _ | Q.113 rate ppm | Trifloxystrobin rate ppm | Activity (%) | P | S? |
| 2 1 0.5 0.25 0.125 2 1 1 0.5 0.5 0.5 | 0.5 0.25 0.125 0.5 0.5 0.25 0.5 0.25 0.125 | 0 0 0 0 0 70 0 0 100 100 100 100 20 | 70 70 0 70 0 | y y y y y | 40 | 2 1 0.5 2 2 2 2 1 1 0.5 | 2 1 0.5 2 1 0.5 2 1 2 | 0 0 0 50 50 50 70 70 70 70 | 50 50 50 50 50 50 | у у у у у |
| 0.25 0.25 0.125 0.125 | 0.5 0.25 0.5 0.25 | 100 70 90 20 | 70 0 70 0 | y y y y | 50 | Q.113 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| Q.113 rate ppm | Compound (VI) rate ppm | Activity (%) | P | S? | 55 | 2 1 0.5 0.25 0.125 | | 0 0 0 0 | | |
| 0.25 0.125 0.0625 0.03125 0.015625 0.0078125 | 0.0625 0.03125 0.015625 0.0078125 0.0625 | 0 0 0 0 0 0 70 70 50 20 | 70 | у | 60 | 2 1 1 0.5 0.5 0.25 0.25 0.125 0.125 | 0.05 0.025 0.05 0.025 0.05 0.025 0.05 0.025 0.05 0.025 0.05 0.025 | 70 0 90 50 90 20 90 0 100 20 | 70 0 70 0 70 0 70 0 70 | y y y y y y |

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| Q.113 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | | Q.062 rate ppm | Fludioxonil rate ppm | Activity (%) | P | S? |
|--|--|--|----------------------------------|-----------------------|-------------------|--|--|--|--|---------------------------------|
| 2 1 0.5 0.25 0.125 2 1 1 0.5 0.5 | 0.5 0.25 0.5 0.25 0.5 0.25 0.5 | 0 0 0 0 0 50 0 70 20 70 | 50 0 50 0 50 | y y y y y | 5 | 0.25 0.1258 0.0625 0.03125 0.25 0.125 0.125 0.0625 0.0625 0.03125 | 0.0625 0.03125 0.03125 0.0625 0.03125 0.0625 0.03125 0.0625 | 0 0 0 0 50 0 90 20 90 100 20 20 | 50 0 50 50 0 | у у у у у у |
| 0.25 0.25 0.125 | 0.25 0.5 0.25 | 0 70 20 | 0 50 0 | y y | 15 - | .062 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| Q.062 rate ppm | Fluxapyroxad rate ppm | Activity (%) | P | S? | | 2 1 0.5 | | 0 0 0 | | |
| 0.03125 0.015625 0.0078125 0.00390625 0.03125 0.03125 0.015625 0.0078125 0.00390625 0.0078125 | 0.125 0.0625 0.03125 0.015625 0.0625 0.125 0.0625 0.03125 0.015625 0.015625 | 0 0 0 0 70 50 50 20 70 90 70 70 50 | 50 70 50 50 20 20 | y y y y | 20 25 30 | 0.25 0.125 2 1 1 0.5 0.5 0.25 0.25 0.125 0.125 | 0.05 0.025 0.05 0.025 0.05 0.025 0.05 0.0 | 0 0 0 50 0 100 50 100 50 20 90 20 90 | 50 0 50 0 50 0 50 0 50 | y y y y y y y |
| Q.062 rate ppm | Pyraclostrobin rate ppm | Activity (%) | P | S? | | Q.062 rate ppm | Flutriafol rate ppm | Activity (%) | P | S? |
| 2 1 0.5 2 1 0.5 Q.062 rate ppm | 2 2 2 2 2 Chlorotalonil rate ppm | 0 0 0 70 90 90 90 90 Activity (%) | 70 70 70 | y y y S? | 40 | 2 1 0.5 2 2 2 2 1 0.5 | 2 1 0.5 2 1 0.5 2 2 2 | 0 0 0 0 0 0 50 20 20 20 | 0 0 0 0 | у у у у у |
| 1 0.5 | | 0 | | | 45 | Q.062 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? |
| 0.25 1 0.5 0.25 | 0.25 0.25 0.25 0.25 | 0 20 50 50 50 | 20 20 20 | y y y | 50 | 1 0.5 0.25 0.125 | 5 | 0 0 0 0 0 70 | | |
| Q.062 rate ppm | Picoxystrobin rate ppm | Activity (%) | P | S? | _ | 1 | 2.5 1.25 5 | 0 0 100 | 70 | y |
| 2 1 0.5 | 2 1 0.5 2 | 0 0 0 50 50 50 70 | 50 50 | y | 55 60 - | 1 0.5 0.5 0.5 0.25 0.125 0.125 | 2.5 5 2.5 1.25 5 5 2.5 | 70 100 20 20 100 100 | 70 0 0 0 0 70 70 | y y y y y y |
| 2 2 1 | 0.5 2 1 | 70 70 70 70 | 50 50 50 | y y y | | Q.062 rate ppm | Fenpropimorph rate ppm | Activity (%) | P | S? |
| 1 1 0.5 0.5 | 0.5 2 1 | 70 70 70 70 | 50 50 50 50 | y y y y | 65 | 2 1 0.5 0.25 | | 0 0 0 | | |

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| 0.125 2 1 1 0.5 0.5 0.5 0.25 0.25 0.125 0.125 | 0.5 0.25 0.125 0.5 0.5 0.25 0.5 | 0 70 0 0 100 100 | 70 | | - | Q.135 rate ppm | Metconazole rate ppm | % Activity | P | CO. |
|--|--|--|--|---|--------------|--|---|--|---|---|
| 1 1 0.5 0.5 0.5 0.25 0.25 0.125 | 0.125 0.5 0.5 0.25 0.5 0.25 | 0 100 100 | 70 | | | | | , | - | S? |
| 0.25 0.25 0.125 | 0.125 | 100 70 | 70 70 0 70 0 | y y y y | 5 | 0.25 0.125 0.0625 0.03125 | 0.0625 0.03125 | 0 0 0 0 70 | 70 | |
| Q.062 | 0.5 0.25 0.5 0.25 Procymidone | 20 100 70 90 20 | 0 70 0 70 0 | y y y y | 10 | 0.25 0.125 0.125 0.0625 0.0625 0.03125 | 0.0625 0.0625 0.03125 0.0625 0.03125 0.03125 | 90 90 50 100 20 20 | 70 70 0 70 0 0 | y y y y y |
| 0.125 | rate ppm | (%) | P | S? | 15 - | Q.135 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? |
| 0.125 0.0625 0.03125 0.015625 0.125 0.0625 0.03125 0.015625 0.015625 | 1.25 0.625 0.3125 1.25 1.25 1.25 0.625 0.3125 | 0 0 0 0 0 0 0 0 70 100 90 70 50 | 0 0 0 0 | y y y y | 20 | 1 0.5 0.25 0.125 | 5 2.5 1.25 0.625 2.5 5 | 0 0 0 0 50 0 0 0 50 0 0 0 50 | 0 50 50 | y y y |
| Q.062 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | | 0.5 0.5 0.25 | 2.5 1.25 5 | 50 20 70 | 0 0 50 | y y y |
| 2 1 0.5 0.25 0.125 | 0.5 | 0 0 0 0 0 0 50 | | | 30 | 0.25 0.25 0.25 0.125 0.125 0.125 0.125 | 2.5 1.25 0.625 5 2.5 1.25 0.625 | 50 20 20 70 50 20 20 | 0 0 0 50 0 0 | y y y y y y |
| 2 | 0.5 0.25 | 90 50 | 50 | y y | 35 - | Q.135 rate ppm | Fluopyram rate ppm | Activity (%) | P | S? |
| 1 0.5 0.5 0.25 0.25 0.125 | 0.5 0.25 0.5 0.25 0.5 0.5 | 70 20 70 0 70 20 | 50 0 50 0 50 0 | y y y | 40 | 1 0.5 0.25 1 0.5 0.25 | 0.25 0.25 0.25 0.25 0.25 | 0 0 0 50 90 70 | 50 50 50 | y y y |
| - | <i>ici</i> (Leaf Blotch) e fungus from cryo | genic stora | age wer | e directly | 45 | Q.135 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| mixed into nutriplacing a (DM microtiter plate the fungal spore | rient broth (PDB po ISO) solution of t (96-well format) the es was added. The to activity was detern | otato dextr he test co ne nutrient est plates v | ose bro mpoun broth c vere inc | th). After ds into a ontaining cubated at | | 0.5 0.25 0.125 0.0625 0.03125 0.5 0.25 0.125 | 0.0125 0.0125 0.0125 0.0125 | 0 0 0 0 0 70 90 90 | 70 70 70 | y y y |
| Q.135 rate ppm | Fluxapyroxad rate ppm | Activity (%) | P | S? | 55 | 0.0625 0.03125 | 0.0125 0.0125 | 90 90 | 70 70 | y y |
| 0.03125 0.015625 0.0078125 | | 0 0 0 | | | _ | Q.135 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? |
| 0.00390625 0.03125 0.015625 0.015625 0.0078125 0.00390625 | 0.0625 0.03125 0.015625 0.0625 0.03125 0.0625 0.03125 0.015625 | 0 20 0 0 70 20 90 50 20 | 20 0 20 0 | у у у у у | 60 | 0.5 0.25 0.125 0.0625 0.03125 0.5 0.25 0.125 | 0.125 0.125 0.125 | 0 0 0 0 0 50 90 | 50 50 50 | y y y |
| 2 1 1 0.5 0.5 0.25 0.25 0.25 0.125 Septoria tritic Conidia of the mixed into nutroplacing a (DM microtiter plate the fungal spore 24° C. and the a Q.135 rate ppm 0.03125 0.015625 0.0078125 0.015625 0.015625 0.015625 0.0078125 | 0.25 0.5 0.25 0.5 0.25 0.5 0.25 0.5 0.25 0.5 0.25 0.6 0.25 0.6 0.25 0.7 0.8 0.8 0.9 0.9 0.9 0.9 0.9 0.0625 0.03125 0.0625 0.03125 0.0625 0.03125 0.0625 0.03125 0.0625 0.03125 | 50 0 90 50 70 20 70 0 70 20 20 genic stora totato dextr he test co be nutrient est plates v nined visu Activity (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 | o 50 0 50 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0 | y y y y y y y th). After ds into a containing cubated at er 72 hrs. | 45 - 50 - 60 | 0.125 Q.135 rate ppm 1 0.5 0.25 1 0.5 0.25 Q.135 rate ppm 0.5 0.25 0.125 0.0625 0.03125 0.0625 0.03125 Q.135 rate ppm 0.5 0.25 0.125 0.0625 0.03125 0.0625 0.03125 Q.135 rate ppm | 0.625 Fluopyram rate ppm 0.25 0.25 0.25 0.25 0.25 Prothioconazole rate ppm 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 0.0125 | | 20 Activity (%) 0 0 0 50 90 70 70 Activity (%) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 20 0 Activity (%) P 0 0 0 50 70 50 70 50 Activity (%) P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

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|--|--|--|----------------------------|------------------|----------------------|---|---|---|--------------------------|-----------------------|
| 0.0625 0.03125 | 0.125 0.125 | 90 90 | 50 50 | y y | | Q.113 rate ppm | Flutriafol rate ppm | Activity (%) | P | S? |
| Q.135 rate ppm | Flutriafol rate ppm | Activity (%) | P | S? | 5 | 2 1 0.5 | | 0 0 0 | | |
| 2 1 0.5 | 1 0.5 1 0.5 1 | 0 0 0 0 0 0 90 50 | 0 0 0 | y y y | 10 | 2 2 1 1 0.5 0.5 | 1 0.5 1 0.5 1 0.5 1 0.5 | 0 0 70 20 70 20 70 20 | 0 0 0 0 0 | y y y y y |
| 1 0.5 0.5 | 0.5 1 0.5 | 20 50 20 | 0 0 | y y y | 15 | Q.113 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? |
| Q.135 rate ppm | Mandipropamid rate ppm | % Activity | P | S? | - 20 | 0.5 0.125 0.0625 0.03125 | | 0 0 0 | | |
| 1 0.5 0.25 2 1 0.5 0.25 | 0.5 0.5 0.5 0.5 0.5 | 0 0 0 70 700 90 70 90 | 70 70 70 70 70 | y y y | 25 | 0.015625 0.5 0.125 0.0625 0.03125 0.015625 | 2.5 0.625 0.3125 0.15625 2.5 2.5 0.625 0.15625 0.3125 | 0 50 0 20 0 90 70 70 20 70 | 50 0 50 0 20 | y y y y y |
| Q.135 rate ppm | Penflufen rate ppm | Activity (%) | P | S? | 30 | Q.113 rate ppm | Picoxystrobin rate ppm | Activity (%) | P | S? |
| 2 1 0.5 | 0.5 0.25 0.125 0.5 0.5 | 0 0 70 20 0 100 | 70 70 | y y | 35 | 0.0078125 0.00390625 0.0078125 0.0078125 0.00390625 | 0.03125 0.015625 0.0078125 0.03125 0.015625 0.0078125 | 0 0 90 70 50 90 90 | 70 70 50 | y y y |
| 1 0.5 0.5 | 0.25 0.25 0.125 | 70 50 20 | 20 20 0 | y y y | 40 | Q.113 rate ppm | Fluazinam rate ppm | Activity (%) | P | S? |
| Q.135 rate ppm | Fluazinam rate ppm | Activity (%) | P | S? | - - | 0.015625 0.0078125 0.00390625 | 0.03125 | 0 0 0 20 | | |
| 0.015625 0.0078125 0.00390625 | 0.03125 0.015625 | 0 0 0 20 0 | | | 45 | 0.015625 0.0078125 0.0078125 0.00390625 | 0.015625 0.03125 0.03125 0.015625 0.015625 | 0 50 50 20 20 | 20 20 0 0 | y y y y |
| 0.015625 0.0078125 0.0078125 0.00390625 | 0.03125 0.03125 0.015625 0.015625 | 50 50 20 20 | 20 20 0 0 | y y y y | 50 | Q.113 rate ppm | Fludioxonil rate ppm | Activity (%) | P | S? |
| Q.113 rate ppm | Fluxapyroxad rate ppm | Activity (%) | P | S? | - | 1 0.5 0.25 | 0.25 | 0 0 70 | 70 | |
| 0.03125 0.015625 0.0078125 | | 0 0 0 | | | - 55 - | 1 0.5 0.25 | 0.25 0.25 0.25 | 90 90 90 | 70 70 70 | y y y |
| 0.00390625 | 0.0625 0.03125 0.015625 | 0 20 0 | | | 60 - | Q.113 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| 0.03125 0.015625 0.015625 0.0078125 0.00390625 | 0.015625 0.0625 0.03125 0.0625 0.03125 0.015625 | 0 70 20 90 50 20 | 20 0 20 0 0 | y y y y | 65 - | 0.5 0.25 0.125 0.0625 0.03125 | 0.0125 0.0125 | 0 0 0 0 0 70 90 | 70 | у |

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| 0.25 0.125 | 0.0125 0.0125 | 90 90 | 70 70 | y y | | Q.062 rate ppm | Fluazinam rate ppm | Activity (%) | P | S? |
|---|---|---|--------------------|------------------|-------------------|---|---|---|--|----------------------------|
| 0.0625 0.03125 | 0.0125 0.0125 | 90 90 | 70 70 | y y | 5 - | 0.03125 0.015625 | | 0 | | |
| Q.113 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | _ | 0.0078125 0.00390625 | 0.0625 | 0 0 70 | | |
| 0.5 0.25 0.125 0.0625 0.03125 | 0.125 0.125 0.125 | 0 0 0 0 0 50 90 | 50 50 | y y | 10 | 0.03125 0.015625 0.015625 0.0078125 0.0078125 0.00390625 | 0.03125 0.015625 0.0625 0.0625 0.03125 0.03125 0.015625 0.015625 | 20 0 90 90 50 50 20 20 | 70 70 20 20 0 | y y y y y |
| 0.125 0.0625 0.03125 | 0.125 0.125 0.125 0.125 | 70 70 70 | 50 50 50 | y y y | _ | Q.062 rate ppm | Metconazole rate ppm | Activity (%) | P | S? |
| Q.062 rate ppm | Isopyrazam rate ppm | Activity (%) | P | S? | 20 | 0.25 0.125 0.0625 0.03125 | | 0 0 0 | | |
| 0.0078125 0.00390625 0.0078125 | 0.03125 0.015625 0.03125 | 0 0 20 0 70 | 20 | у | 25 | 0.25 0.125 0.0625 0.03125 | 0.0625 0.0625 0.0625 0.0625 0.0625 | 50 70 70 70 70 | 50 50 50 50 | y y y y |
| 0.00390625 Q.062 | 0.015625 Fluxapyroxad | 70 Activity | 0 | у | _ | Q.062 rate ppm | Paclobutrazol rate ppm | Activity (%) | P | S? |
| 0.03125 0.015625 0.0078125 | rate ppm | (%) 0 0 0 | P | S? | _ 30 | 1 0.5 0.25 | 10 5 | 0 0 0 70 70 | | |
| 0.00390625 0.00390625 0.03125 0.015625 0.015625 0.0078125 0.00390625 Q.062 | 0.0625 0.03125 0.015625 0.0625 0.03125 0.0625 0.03125 0.015625 | 0 20 0 0 70 20 90 70 20 | 20 0 20 0 | y y y y | 35 40 | 1 0.5 0.5 0.5 0.25 0.25 0.25 0.25 | 2.5 1.25 0.625 2.5 10 2.5 1.25 10 5 2.5 0.625 | 20 0 0 50 100 70 20 100 100 70 90 | 20 70 20 0 70 70 70 20 0 | y y y y y y |
| rate ppm | rate ppm | (%) 0 | P | S? | _ | Q.062 rate ppm | Fluopyram rate ppm | Activity (%) | P | S? |
| 2 2 2 1 1 0.5 | 1 0.5 1 0.5 1 0.5 | 0 0 0 0 70 20 70 20 70 | 0 0 0 0 | y y y y | 45 - 50 | 0.125 0.0625 0.03125 0.125 0.0625 0.0625 0.03125 | 0.25 0.125 0.25 0.25 0.125 0.125 | 0 0 0 50 0 70 70 20 20 | 50 50 0 | y y y y |
| Q.062 rate ppm | Picoxystrobin rate ppm | Activity (%) | P | S? | 55 | Q.062 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| 0.03125 0.015625 0.0078125 0.00390625 0.03125 0.015625 0.0078125 | 0.015625 0.0078125 0.0078125 0.0078125 0.0078125 | 0 0 0 0 70 20 50 20 70 | 20 20 20 | y y | 60 | 0.5 0.25 0.125 0.0625 0.03125 0.5 0.25 0.125 | 0.0125 0.0125 0.0125 0.0125 | 0 0 0 0 0 70 90 90 | 70 70 70 | y y y |

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| Q.062 rate ppm | Propiconazole rate ppm | Activity (%) | P | S? | |
|-------------------|------------------------|--------------|----|----|--|
| 0.5 | | 0 | | | |
| 0.25 | | 0 | | | |
| 0.125 | | 0 | | | |
| 0.0625 | | 0 | | | |
| 0.03125 | | 0 | | | |
| | 0.125 | 50 | | | |
| 0.5 | 0.125 | 90 | 50 | у | |
| 0.25 | 0.125 | 90 | 50 | y | |
| 0.125 | 0.125 | 90 | 50 | у | |
| 0.0625 | 0.125 | 70 | 50 | у | |
| 0.03125 | 0.125 | 70 | 50 | у | |

Gaeumannomyces graminis (Take-all of Cereals)

Mycelial fragments of the fungus from cryogenic storage were directly mixed into nutrient broth (PDB potato dextrose broth). After placing a (DMSO) solution of the test compounds into a microtiter plate (96-well format) the nutrient broth containing the fungal spores was added. The test plates were incubated at 24° C. and the activity was determined visually after 48 hrs

| | Compound (V) rate ppm | Activity (%) | P | S? |
|------------------|-----------------------------|--------------|---------|--------|
| Q.113 | | | | |
| rate ppm | _ | | | |
| 0.25 | | 0 | | |
| 0.125 | | 0 | | |
| 0.0625 | | 0 | | |
| 0.03125 | | 0 | | |
| 0.015625 | | 0 | | |
| | 0.0625 | 70 | | |
| | 0.03125 | 20 | | |
| 0.05 | 0.015625 | 0 | 7.0 | |
| 0.25 | 0.0625 | 90 | 70 | У |
| 0.125 | 0.03125 | 50 | 20 | У |
| 0.0625 0.0625 | 0.015625 0.03125 | 20 50 | 0 20 | У |
| 0.03125 | 0.03123 | 90 | 70 | У |
| 0.03123 | 0.03125 | 50 | 20 | y y |
| Q.062 | 0.03123 | 30 | 20 | У |
| rate ppm | _ | | | |
| 0.015625 | | 0 | | |
| 0.0078125 | | 0 | | |
| 0.00390625 | | 0 | | |
| | 0.0625 | 70 | | |
| | 0.03125 | 20 | | |
| | 0.015625 | 0 | | |
| 0.015625 | 0.03125 | 50 | 20 | y |
| 0.0078125 | 0.015625 | 20 | 0 | у |
| 0.015625 | 0.0625 | 100 | 70 | У |
| 0.0078125 | 0.03125 | 70 | 20 | У |
| 0.00390625 | 0.015625 | 20 | 0 | У |

Pythium ultimum (Damping Off):

Mycelial fragments of the fungus, prepared from a fresh liquid culture, were directly mixed into nutrient broth (PDB potato dextrose broth). After placing a (DMSO) solution of the test compounds into a microtiter plate (96-well format) the nutrient broth containing the fungal spores was added. The test plates were incubated at 24° C. and the activity was determined visually after 48 hrs

| Q.135 rate ppm | Mefenoxam rate ppm | Activity (%) | P | S? |
|-------------------|-----------------------|-----------------|----|----|
| 0.0625 | | 0 | | |
| 0.03125 | | 0 | | |
| 0.015625 | | 0 | | |
| 0.0078125 | | 0 | | |
| | 0.03125 | 50 | | |
| 0.0625 | 0.03125 | 70 | 50 | у |
| 0.03125 | 0.03125 | 50 | 50 | |
| 0.015625 | 0.03125 | 70 | 50 | у |
| 0.0078125 | 0.03125 | 70 | 50 | У |

Mycosphaerella arachidis (y. Cercospora arachidicola),

Brown leaf spot of groundnut (peanut): Conidia of the fungus from cryogenic storage were directly mixed into nutrient broth (PDB potato dextrose broth). After placing a (DMSO) solution of the test compounds into a microtiter plate (96-well format) the nutrient broth containing the fungal spores was added. The test plates were incubated at 24° C. and activity was determined visually after 5-6 days.

| _ | | | | | |
|------|------------------------|-----------------------|----------|----|----|
| 25 | Q.135 | Sedaxan | Activity | P | S? |
| _ | rate ppm | rate ppm | (%) | r | 31 |
| | 0.0625 | | 50 | | |
| | 0.03125 | | 50 | | |
| | 0.015625 | | 20 | | |
| | 0.0078125 | | 0 | | |
| 30 | | 0.03125 | 0 | | |
| | | 0.015625 | 0 | | |
| | | 0.00390625 | 0 | | |
| | 0.0625 | 0.03125 | 70 | 50 | У |
| | 0.0625 | 0.015625 | 70 | 50 | У |
| | 0.03125 | 0.031215 | 50 | 50 | |
| 35 | 0.015625 | 0.00390625 | 50 | 20 | у |
| _ | 0.0078125 | 0.00390625 | 20 | 0 | У |
| | Q.135 | Fluazinam | Activity | | |
| | rate ppm | rate ppm | (%) | P | S? |
| | 0.0625 | | 50 | | |
| 40 | 0.03125 | | 50 | | |
| | 0.15625 | | 0 | | |
| | 0.0078125 | | 0 | | |
| | | 0.03125 | 0 | | |
| | | 0.015625 | 0 | | |
| | | 0.0078125 | 0 | | |
| 45 | | 0.00390625 | 0 | | |
| | 0.0625 | 0.015625 | 70 | 50 | У |
| | 0.03125 | 0.015625 | 50 | 50 | У |
| | 0.015625 | 0.03125 | 20 | 0 | У |
| | 0.015625 | 0.015625 | 20 | 0 | У |
| | 0.015625 | 0.0078125 | 50 | 0 | У |
| 50 | 0.015625 | 0.00390625 | 50 | 0 | У |
| | 0.0078125 0.0078125 | 0.03125 0.00390625 | 20 20 | 0 | у |
| _ | 0.0078123 | 0.00390623 | 20 | 0 | У |
| | Q.135 | Cyprodinil | % | | |
| | rate ppm | rate ppm | Activity | P | S? |
| 55 - | 0.03125 | | 50 | | |
| | 0.015625 | | 20 | | |
| | | 0.00125 | 0 | | |
| | | 0.0625 | 0 | | |
| | | 0.003125 | 0 | | |
| 60 | | 0.0015625 | O | | |
| 00 | | 0.00078125 | 0 | | |
| | 0.03125 | 0.00078125 | 90 | 50 | У |
| | 0.03125 | 0.0015625 | 70 | 50 | у |
| | 0.03125 | 0.003125 | 70 | 50 | У |
| | 0.03125 | 0.00625 | 70 | 50 | У |
| 65 | 0.03125 | 0.0125 | 70 | 50 | У |
| 03 | 0.015625 | 0.00078125 | 50 | 20 | У |

| 715 -continued | | | | | | 716 -continued | | | | | |
|---|---|--|--|-----------------------|------------------------|---|---|--|---|---|--|
| Q.135 rate ppm | Fludioxonil rate ppm | Activity (%) | P | S? | - - 5 | 0.125 0.125 0.0625 | 0.5 0.25 0.25 | 100 70 50 | 85 50 20 | y y y | |
| 0.03125 0.015625 | 0.0625 0.03125 0.015625 | 50 20 0 0 | | | | Q.113 rate ppm | 0.125 Fenpropimorph rate ppm | Activity (%) | 0 P | y S? | |
| 0.03125 0.015625 0.015625 0.015625 0.015625 0.015625 | 0.0078125 0.00390625 0.015625 0.0625 0.03125 0.015625 0.0078125 0.00390625 | 0 0 70 50 50 50 50 | 50 20 20 20 20 20 20 | y y y y y | 10 | 0.125 0.0625 0.03125 0.015625 0.125 0.125 | 0.0625 0.03125 0.0625 0.03125 | 50 50 20 0 70 50 100 | 85 75 | y | |
| Q.135 rate ppm | Fenpropimorph rate ppm | Activity (%) | P | S? | _ | 0.0625 0.03125 0.015625 | 0.03125 0.03125 0.0625 0.03125 | 90 100 70 | 75 76 50 | y y y y | |
| 0.0625 0.03125 0.015625 0.0078125 | | 70 70 70 20 | | | 20 | Q.062 rate ppm | Bixafen rate ppm | Activity (%) | P | S? | |
| 0.00390625 0.0625 0.03125 0.015625 0.015625 | 0.03125 0.015625 0.0078125 0.00390625 0.015625 0.015625 0.0078125 0.00390625 | 0 70 50 20 20 100 100 90 | 85 85 76 76 | y y y y | 25 | 0.0625 0.03125 0.015625 0.0625 0.03125 0.015625 | 0.0625 0.03125 0.0625 0.0625 0.0625 | 0 0 0 70 50 90 90 | 70 70 70 | y y y | |
| 0.0078125 0.0078125 0.0078125 0.00390625 0.00390625 | 0.03125 0.0078125 0.00390625 0.015625 0.0078125 | 100 50 50 70 50 | 76 36 36 50 20 | y y y y | 30 | 0.015625 Q.062 rate ppm | 0.03125 Fludioxonil rate ppm | Activity (%) | 50 P | y S? | |
| Q.113 rate ppm | Sedaxan rate ppm | Activity (%) | P | S? | 35 | 2 1 0.5 | | 70 70 0 | | | |
| 0.125 0.0625 0.125 0.0625 0.0625 0.0625 0.0625 | 0.125 0.0625 0.03125 0.015625 0.125 0.125 0.0625 0.03125 0.015625 | 20 0 0 0 0 0 50 20 20 20 | 20 0 0 0 0 | у у у у у | 40 | 0.25 0.125 2 1 0.5 0.5 0.5 0.5 0.25 | 0.5 0.25 0.125 0.5 0.5 0.5 0.25 0.125 | 0 0 50 0 100 100 100 50 20 | 85 85 50 0 0 50 | y y y y y | |
| Q.113 rate ppm | Fluazinam rate ppm | Activity (%) | P | S? | _ ~ | 0.25 0.125 | 0.25 0.25 | 20 20 | 0 | y y | |
| 0.03125 0.015625 | | 0 0 0 | | | 50 | Q.062 rate ppm | Cyprodinil rate ppm | Activity (%) | P | S? | |
| 0.0078125 0.03125 0.015625 0.0078125 | 0.0625 0.03125 0.0625 0.0625 0.03125 | 20 0 50 50 20 | 20 20 0 | y y y | | 1 | 0.2 0.1 0.05 0.025 0.025 | 70 0 0 0 0 0 | 70 | у | |
| Q.113 rate ppm | Fludioxonil rate ppm | Activity (%) | P | S? | — 55 | 1 1 | 0.1 0.2 | 90 90 | 70 70 | y y | |
| 0.5 0.25 0.125 0.0625 0.03125 | 0.5 0.25 0.125 0.25 0.25 | 70 70 50 20 0 70 0 0 100 90 | 70 70 | y y | 60 | After placing 0.2% DMSO) i equal amount of of the well. Finatest plates were was determined | ci (Leaf Blotch): solutions of the tento a microtiter pf the nutrient brothally the fungal spoincubated at 20° C photometrically alation to untreated | plate (96- (YBG) we re solution C. The inhalter 6 day | well for as adde was a ibition | ormat), and ed to each dded. The of growth | |

| Q.135 | Tebuconazole | Activity | | | _ | -continued | | | | |
|--|---|---|----------------------------------|-----------------------|---------------|--|--|--|----------------------------|-----------------------|
| rate ppm | rate ppm | Activity (%) | P | S? | | 1.25 1.25 | 2.5 1.25 | 98 87 | 88 69 | y y |
| 1.25 0.625 0.3125 | 1 25 | 24 25 35 0 | | | 5 | Q.062 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? |
| 1.25 0.625 0.3125 | 1.25 1.25 1.25 1.25 | 59 51 54 | 24 25 35 | y y y | - | 0.3125 0.15625 0.0078125 | | 33 38 31 | | |
| Q.135 rate ppm | Epoxiconazole rate ppm | % Activity | P | S? | - 10 | 0.3125 0.15625 | 0.0625 0.03125 0.0625 0.0625 | 63 9 88 98 | 75 77 | у |
| 1.25 0.625 0.3125 | | 22 32 34 | | | _ | 0.078125 | 0.03125 | 63 | 37 | y y |
| 0.15625 | 0.3125 | 29 78 65 | | | 15 | Q.062 rate ppm | Tebuconazole rate ppm | Activity (%) | P | S? |
| 1.25 0.625 0.625 0.3125 0.15625 0.15625 | 0.15625 0.3125 0.3125 0.15625 0.3125 0.3125 0.15625 | 95 98 94 100 100 98 | 83 85 76 86 85 75 | y y y y y | 20 | 5 2.5 1.25 5 5 2.5 | 5 2.5 5 2.5 5 | 57 41 51 73 47 100 96 100 | 89 77 84 | y y y |
| Q.113 rate ppm | Cyproconazole rate ppm | Activity (%) | P | S? | _ 25 _ | 2.5 1.25 | 2.5 5 | 81 99 | 69 87 | y y |
| 10 | 1 0.5 | 63 84 64 | | | | Q.062 rate ppm | Prochloraz rate ppm | Activity (%) | P | S? |
| 10 10 10 | 0.25 1 0.5 0.25 | 0 100 100 86 | 94 87 63 | y y y | 30 | 0.625 0.3125 0.625 | 0.03125 0.015625 0.03125 | 35 37 80 48 98 | 87 | V |
| Q.113 rate ppm | Prothioconazole rate ppm | Activity (%) | P | S? | _ | 0.625 0.3125 | 0.03123 0.015625 0.03125 | 79 97 | 66 87 | y y y |
| 0.15625 0.078125 0.0390625 | | 42 31 28 | | | 35 | Q.062 rate ppm | Epoxiconazole rate ppm | Activity (%) | P | S? |
| 0.01953125 0.15625 0.078125 0.078125 0.0390625 0.01953125 0.01953125 | 0.0390625 0.01953125 0.0390625 0.0390625 0.01953125 0.0390625 0.0390625 0.01953125 | 15 63 69 96 100 100 99 100 93 | 78 74 79 73 68 74 | y y y y y | 40 | 2.5 1.25 0.625 0.3125 2.5 1.25 0.625 0.3125 | 0.625 0.3125 0.625 0.3125 0.3125 | 48 51 48 42 71 33 98 77 79 71 | 85 67 65 61 | y y y y |
| Q.113 rate ppm | Epoxiconazole rate ppm | Activity (%) | P | S? | 45 <u>-</u> | Q.062 rate ppm | Difenoconazole rate ppm | Activity (%) | P | S? |
| 1.25 0.625 0.3125 0.15625 0.078125 1.25 0.625 0.3125 0.15625 0.078125 | 0.3125 0.3125 0.3125 0.3125 0.3125 0.3125 | 42 39 34 34 33 50 97 100 99 99 | 71 70 67 67 67 | y y y y | 50 | 0.625 0.3125 0.15625 0.078125 0.00390625 0.625 0.3125 0.15625 0.078125 0.00390625 | 0.15625 0.15625 0.15625 0.15625 0.15625 0.15625 | 40 36 39 29 32 48 89 81 77 81 84 | 69 67 68 63 64 | y y y y y |
| Q.062 rate ppm | Cyproconazole rate ppm | Activity (%) | P | S? | - - 60 | Q.062 rate ppm | Compound (S)-(VII) rate ppm | Activity (%) | P | S? |
| 5 2.5 2.5 2.5 2.5 | 2.5 1.25 1.25 2.5 1.25 | 49 48 76 39 96 100 86 | 78 88 69 | y y y | 65 | 0.625 0.3125 | 0.125 0.0625 0.03125 | 26 22 62 44 0 | | |

25

35

40

 $Sclerotinia\ sclerotiorum\$ on Oilseed Rape, Preventive Treatment

The compound activity was tested under 1 day preventive conditions. Oilseed rape plants with 3 unfolded leafs were sprayed with a track sprayer and 200 I/ha spray volume with the test compounds, either solo or in tankmix as shown in the table below.

1 day after application the plants were infested with a solution of *Sclerotinia sclerotiorum* mycelium. The plants 10 were placed under plastic hoods and high humidity conditions in a climate chamber at 14 h day/10 h night cycle and 15° C. Disease infestation was evaluated visually 11 days after application and average activity calculated in relation to disease severity on untreated check.

| | Boscalid rate g a.i./ha | Activity (%) | P | S? |
|-------------------|----------------------------|-----------------|----|----|
| Q.135 rate ppm | | | | |
| 100 | | 15 | | |
| 50 | | 0 | | |
| 25 | | 0 | | |
| | 100 | 25 | | |
| | 50 | 8 | | |
| 100 | 100 | 59 | 36 | y |
| 50 | 50 | 49 | 8 | y |
| 25 | 100 | 76 | 25 | y |
| 100 | 50 | 62 | 21 | y |
| 50 | 50 | 92 | 10 | y |
| 25 | 100 | 83 | 25 | y |
| 100 | 50 | 93 | 32 | y |
| Q.113 | | | | |
| rate ppm | | | | |
| 100 | | 39 | | |
| 50 | | 2 | | |
| 25 | | 2 | | |
| -20 | 100 | 25 | | |
| | 50 | 8 | | |
| 100 | 100 | 83 | 54 | у |
| 50 | 50 | 89 | 10 | y |
| 25 | 100 | 83 | 26 | y |
| 100 | 50 | 86 | 44 | y |
| Q.062 | | | | • |
| rate ppm | | | | |
| 100 | | 26 | | |
| 50 | | 2 | | |
| 25 | | 0 | | |
| 20 | 100 | 25 | | |
| | 50 | 8 | | |
| 100 | 100 | 91 | 44 | у |
| 50 | 50 | 92 | 10 | y |
| 25 | 100 | 83 | 25 | y |
| 100 | 50 | 93 | 32 | y |

Sphaerotheca fuliqinea (Powdery Mildew) on Cucumber, Preventive Treatment

The compound activity was tested under 2 days preventive conditions. Cucumber plants with unfolded cotyledons were sprayed with a roomsprayer and 40 ml/4 plants spray volume with the test compounds, either solo or in tankmix as shown in the table below.

2 days after application the plants were infested with spores of *Sphaerotheca fuliginea*. The plants were placed in a climate chamber under 70% rel. humidity, 22° C. and 14 h day/10 h night cycle. Disease infestation was evaluated visually 10 days after application and average activity calculated in relation to disease severity on untreated check.

| | Acibenzolar-s- methyl rate ppm | Activity (%) | P | S? |
|--|--------------------------------------|----------------------------|------------------------|-------------|
| Q.135 rate ppm | _ | | | |
| 2 0.6 0.2 | | 0 0 0 | | |
| | 20 6 2 0.6 | 4 0 0 0 | | |
| 2 2 0.6 0.6 0.2 Q.113 rate ppm | 20 6 6 2 2 | 49 16 15 4 3 | 4 0 0 0 0 | y y y |
| 2 0.6 0.2 | 20 6 2 0.6 | 0 0 0 4 0 0 | | |
| 2 2 0.6 0.6 0.2 Q.062 rate ppm | 20 6 6 2 2 | 18 12 5 7 9 | 4 0 0 0 0 | y y |
| 2 0.6 0.2 | 20 6 2 0.6 | 7 0 0 4 0 0 | | |
| 2 2 0.6 0.6 0.2 | 20 6 6 2 2 | 11 4 9 5 9 | 11 7 0 0 0 | y y |

Fusarium spp. on Wheat, Preventive Treatment

The compound activity was tested under 1 day preventive condition. Flowering wheat plants were sprayed with a track sprayer and 220 I/ha spray volume with the test compounds, either solo or in tankmix as shown in the table below. The compounds were formulated as standard EC100 and diluted into water to the given spray-dosis.

1 day after application the flowering ears were infested with a mix of spores of *Fusarium graminearum* and *Fusarium culmorum*. The plants were placed in a climate chamber under 60% rel. humidity, and 14 h day/10 h night cycle with 23/21° C. Disease infestation was evaluated visually 9 days after application and average activity calculated in relation to disease severity on untreated check.

| Compound | g a.i./ha | Activity (%) | P | S? |
|-----------------------|-----------|-----------------|----|----|
| Prothioconazole (PTZ) | 50 | 55 | | |
| Q.062 | 200 | 17 | | |
| Q.135 | 200 | 28 | | |
| Q.113 | 200 | 23 | | |
| Q.151 | 200 | 3 | | |
| PTZ + Q.062 | 200 + 50 | 83 | 63 | У |
| PTZ + Q.135 | 200 + 50 | 86 | 68 | y |

Q.151

-continued

| Compound | g a.i./ha | Activity (%) | P | S? |
|-------------|-----------|-----------------|----|----|
| PTZ + Q.113 | 200 + 50 | 85 | 65 | y |
| PTZ + Q.151 | 200 + 50 | 88 | 56 | y |

Phakopsora pachyrhizi on Soybean, Preventive Treatment
The compound activity was tested under 1 day preventive
conditions. Soybean plants with a fully enfolded first trifoliate leaf were sprayed with a track sprayer and 50 I/ha spray
volume with the test compounds, either solo or in tankmix as
shown in the table below. 1 day after application leaf discs
were cutted from the first trifoliate leaf and placed in multiwell plates on water-agar. 5 leaf discs per treatment where
infested with spores of a triazole tolerant soybeanrust strain.
The multiwell plates where sealed and placed in an incubator
48 h in darkness and 12 h light/dark cycle afterwards. Rust
infestation on leaf discs was evaluated visually 11 days after
application and average activity calculated in relation to disease severity on untreated check leaf discs.

| Compound | Rate (g ai/ha) | Activity (%) | P | S? |
|---------------|-------------------|-----------------|-----|-----|
| Cyproconazole | 2 | 53 | N/A | N/A |
| Cyproconazole | 0.5 | 38 | N/A | N/A |
| Q.062 | 2 | 13 | N/A | N/A |
| Q.062 | 0.5 | 0 | N/A | N/A |
| Q.063 | 2 | 0 | N/A | N/A |
| Q.063 | 0.5 | 0 | N/A | N/A |
| Q.113 | 2 | 25 | N/A | N/A |
| Q.113 | 0.5 | 1 | N/A | N/A |
| Q.135 | 2 | 41 | N/A | N/A |
| Q.135 | 0.5 | 13 | N/A | N/A |
| Q.062 + | 2 + 2 | 99 | 59 | Yes |
| Cyproconazole | | | | |
| Q.062 + | 2 + 0.5 | 78 | 46 | Yes |
| Cyproconazole | | | | |
| Q.062 + | 0.5 + 2 | 96 | 53 | Yes |
| Cyproconazole | | | | |
| Q.063 + | 2 + 2 | 100 | 53 | Yes |
| Cyproconazole | | | | |
| Q.063 + | 2 + 0.5 | 98 | 38 | Yes |
| Cyproconazole | | | | |
| Q.063 + | 0.5 + 2 | 98 | 53 | Yes |
| Cyproconazole | | | | |
| Q.113 + | 2 + 2 | 100 | 65 | Yes |
| Cyproconazole | | | | |
| Q.113 + | 2 + 0.5 | 94 | 54 | Yes |
| Cyproconazole | | | | |
| Q.113 + | 0.5 + 2 | 96 | 54 | Yes |
| Cyproconazole | | | | |
| Q.135 + | 2 + 2 | 95 | 72 | Yes |
| Cyproconazole | | | | |
| Q.135 + | 2 + 0.5 | 98 | 72 | Yes |
| Cyproconazole | | | | |
| Q.135 + | 0.5 + 2 | 97 | 46 | Yes |
| Cyproconazole | | | | |

Septoria tritici on Wheat, Preventive Treatment

Four pots per treatment with 4 plants of the wheat variety Riband in each of 6.5 cm pots have been treated 14 days after sowing with the compounds given in the results table. The compounds were formulated as standard EC100 and diluted 60 into water to the given spray-dosis. One day after application of the compounds solo and in mixture, the plants were infested with spores of *Septoria tritici*. To enable a good infestation, the plants were covered with a plexiglas hood for 48 h after inoculation. The plants grew in a controlled environment for 14 h at 21° C. during day and 10 h at 19° C. during night. 18 days after application the infestation of the 2nd leaf

of each of the plants and of the untreated, infested check was evaluated visually. The activity data in the table then derived from a calculation of the infestation of the means of the 4 plants of 4 repetitions of each of the solo or mixture treatments with the mean of the of the 4 plants of 4 repetitions of the untreated infested check.

| | | Activity | | |
|---------------------------|------------------|-----------|----------|-------|
| | ga/ha | (%) | P | S? |
| compound (VII) | 27 | 96 | N/A | N/A |
| | 9 | 20 | | |
| | 3 | 0 | /. | |
| Q.062 | 27 | 71 | N/A | N/A |
| | 9 | 8 | | |
| 0.125 | 3 27 | 6 82 | N/A | N/A |
| Q.135 | 9 | 33 | 18/24 | 18/24 |
| | 3 | 0 | | |
| Q.113 | 27 | 16 | N/A | N/A |
| | 9 | 0 | | |
| | 3 | 0 | | |
| Q.151 | 27 | 0 | N/A | N/A |
| | 9 | 0 | | |
| 1.77 | 3 | 0 | | |
| compound (VII) + | 9 + 27 | 98 | 77 | Y |
| Q.062 | 3 + 9 | 36 | 8 | Y |
| compound (VII) + Q.062 | 27 + 27 9 + 9 | 99 93 | 99 26 | Y |
| compound (VII) + | 27 + 9 | 93 97 | 20 97 | 1 |
| Q.062 | 9+3 | 58 | 25 | Y |
| compound (VII) + | 9 + 27 | 98 | 47 | Ý |
| Q.135 | 3 + 9 | 47 | 0 | Y |
| compound (VII) + | 27 + 27 | 100 | 99 | |
| Q.135 | 9 + 9 | 92 | 47 | Y |
| compound (VII) + | 27 + 9 | 100 | 98 | |
| Q.135 | 9 + 3 | 91 | 20 | Y |
| compound (VII) + | 9 + 27 | 97 | 33 | Y |
| Q.113 | 3 + 9 27 + 27 | 38 | 0 | Y |
| compound (VII) + | 21 + 21 9 + 9 | 100 76 | 97 20 | Y |
| Q.113 compound (VII) + | 27 + 9 | 99 | 96 | 1 |
| Q.113 | 9+3 | 70 | 20 | Y |
| compound (VII) + | 9 + 27 | 97 | 20 | Ý |
| Q.151 | 3 + 9 | 69 | 0 | Y |
| compound (VII) + | 27 + 27 | 99 | 96 | |
| Q.151 | 9 + 9 | 96 | 20 | Y |
| compound (VII) + | 27 + 9 | 99 | 96 | |
| Q.151 | 9 + 3 | 71 | 20 | Yes |
| | | Activity | _ | |
| Compound | g a.i./ha | (%) | P | S? |
| Difenoconazole | 27 | 5 | | |
| (DFZ) | 9 3 | 3 0 | | |
| | 1 | 0 | | |
| | 0.33 | 0 | | |
| Q.062 | 81 | 61 | | |
| - | 27 | 50 | | |
| | 9 | 26 | | |
| | 3 | 8 | | |
| | 1 | 2 | | |
| Q.135 | 81 | 70 | | |
| | 27 | 52 | | |
| | 9 | 43 | | |
| | 3 | 9 | | |
| | 1 | 0 | | |
| Q.113 | 81 | 53 | | |
| | 27 | 61 | | |
| | 9 | 29 | | |
| | 3 | 0 | | |
| | | | | |

| -contin | ueu | | | |
|---------|-----|-----|-----|---|
| 27 + 81 | 97 | 63 | Y | _ |
| 9 + 27 | 49 | 51 | | |
| 27 + 27 | 85 | 52 | Y | |
| 9 + 9 | 21 | 28 | | |
| 27 + 9 | 61 | 30 | Y | |
| 9 + 3 | 0 | 10 | | |
| 27 + 81 | 100 | 71 | Y | |
| 0 . 27 | 0.3 | E 1 | 3.7 | |

Q.062 5 DFZ + Q.135 55 27 + 2790 Y 10 9 + 942 45 27 + 968 46 Y 41 12 DFZ + 56 Y 94 62 Q.113 95 63 Y 69 31 15 32 50 94 46 DFZ -68 15 Q.151 9 + 2797 17 9 + 964 20 85 28 9 + 3

What is claimed is:

DFZ +

1. A fungicidal composition, comprising a combination of components A) and B), wherein component A) is a compound of formula (I)

wherein

 R_1 and R_2 are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl, C₃-C₄ alkynyl, (R₁₀)carbonyl and (R₁₀)oxycarbonyl;

or R₁ and R₂ together with the nitrogen atom to which they are attached form a 5- or 6 membered cyclic group which 45 may be saturated or unsaturated and may contain a further heteroatom selected from S or O;

R₃ represents hydrogen, halogen, cyano, nitro, mercapto, hydroxy, $-C(=S)NH_2$, $-SF_5$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_2-C_6 50 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, a 5-membered heterocycle containing 1-4 nitrogen atoms, piperidino, morpholino, thiomorpholino, formyl, hydroxycarbonyl, 55 C_2 - C_7 alkoxycarbonyl, C_2 - C_7 haloalkoxycarbonyl, C₄-C₇ al kenyloxycarbonyl, C₄-C₇ haloalkenyloxycarbonyl, C₂-C₇ alkylcarbonyl, C₂-C₇ haloalkylcarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl, C₁-C₆ hydroxyalkyl, phenyl or benzyl wherein the phenyl and benzyl are optionally substituted by one or more groups independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, amino, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ 65 alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl;

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄ alkyl, C_1 - C_4 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_4 alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₁-C₄ alkylthio, C₁-C₄ alkylsulfinyl, C₁-C₄ alkylsulfonyl, methylamino or dimethylamino;

 C_{1} , C_{3} - C_{12} alkenyl, C_{1} - C_{12} alkylsulfonyl, hydrogen, C_1 - C_{12} alkyl, C_3 - C_{12} alkynyl, C₂-C₁₂alkenylsulfonyl, phenylsulfonyl or benzylsulfonyl, or is C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₁-C₁₂alkylsulfonyl, C₂-C₁₂alkenylsulfonyl, phenylsulfonyl or benzylsulfonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, C₂-C₇alkylcarbonyl, formyl, C_2 - C_7 haloalkylcarbonyl, C_1 - C_6 alky \bar{l} , C_1 - C_6 haloalkyl, C₁-C₆alkylthio, C₁-C₆alkoxy, C₁-C₆haloalkoxy, C₁-C₆alkylsulfinyl and C₁-C₆alkylsulfonyl; or

R₅ is formyl, C₂-C₁₂ alkylcarbonyl, C₃-C₁₂ alkenylcarbonyl, C₃-C₁₂ alkynylcarbonyl, C₄-C₁₂ cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, $\mathrm{C}_2\text{-}\mathrm{C}_{12}$ alkoxycar- C_4-C_{12} C_4-C_{12} alkenyloxycarbonyl, alkynyloxycarbonyl, C4-C12 cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl, or is C2-C12 alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, C_3 - C_{12} alkynylcarbonyl, C₄-C₁₂ cycloalkylcarbonyl, benzylcarbonyl, phenylcarbonyl, C_2 - C_{12} alkoxycarbonyl, C_4 - C_{12} alkenyloxycarbonyl, C_4 - C_{12} alkynyloxycarbonyl, C_4 - C_{12} cycloalkoxycarbonyl, benzyloxycarbonyl or phenoxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ alkoxy; or

 $(R_{51})(R_{52})(R_{53})Si-(C_3-C_8cycloalkyl)-,$ C₁₂alkyl)-, $(R_{54}O)(R_{55}O)(R_{56}O)Si$ —, $(R_{54}O)(R_{55}O)(R_{56}O)Si$ — $(C_1-C_{12} \text{ alkyl})$ - or $(R_{54}O)(R_{55}O)(R_{56}O)Si$ — (C_3-C_8) cycloalkyl)-; or

 R_5 is C_1 - C_6 alkyl-B— C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C_{12} alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B- C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C_2 - C_{12} alkenyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkenyl-, C_3 - C_8 cycloalkyl- $B-C_2-C_{12}$ alkenyl-, benzyl- $B-C_2-C_{12}$ alkenyl-, phenyl-B— C_2 - C_{12} alkenyl-, C_1 - C_6 alkyl-B— C_2 -C₂-C₆alkenyl-B—C₂-C₁₂alkynyl-, C₁₂alkynyl-, C₂-C₆alkynyl-B—C₂-C₁₂alkynyl-, C₃-C₈cycloalkyl- $B-C_2-C_{12}$ alkynyl-, benzyl- $B-C_2-C_{12}$ alkynyl-, phenyl-B—C₂-C₁₂alkynyl-, C_1 - C_6 alkyl-B— C_3 -C₈cycloalkyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C_2 - C_6 alkynyl-B— C_3 - C_8 cycloalkyl-, C_3 - C_8 cycloalkyl-B—C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl- or phenyl-B—C₃-C₁₂cycloalkyl-, wherein the group B is —C(=O)—, selected from —C(=S)—, $-C(=NOR_{59}) -C(R_{60})=NO-, -ON=C$ -S(=O)-—S(==O)2-, $(=NR_{13})-, -S(=O)(R_{14})=N-, -N=S(=O)$ (R_{14}) —, $-N(R_{62})$ —C=O)—, -C=O)— $N(R_{62})$ —, $-N(R_{62})$ — SO_2 — or — SO_2 — $N(R_{62})$ —; or

 R_5 is C_1 - C_6 alkyl-B— C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - $\begin{array}{cccc} C_{12}alkyl-, & C_2\text{-}C_6alkynyl\text{-}B\text{--}C_1\text{--}C_{12}alkyl-,} \\ C_3\text{--}C_8cycloalkyl\text{-}B\text{---}C_1\text{--}C_{12}alkyl-,} & benzyl\text{--}B\text{---}C_1\text{--} \end{array}$ C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C₂-C₁₂alkenyl-, C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkenyl-, C_3 - C_8 cycloalkyl-B—C₂-C₁₂alkenyl-, benzyl-B—C₂-C₁₂alkenyl-, phe-

 $nyl\text{-}B\text{---}C_2\text{-}C_{12}alkenyl\text{--},$ C_1 - C_6 alkyl-B— C_2 - C_2 - C_6 alkenyl-B— C_2 - C_{12} alkynyl-, C₁₂alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, C_3 - C_8 cycloalkyl-B-C2-C12alkynyl-, benzyl-B-C2-C12alkynyl-, phenyl-B—C₂-C₁₂alkynyl-, C_1 - C_6 alkyl-B— C_3 - 5 $\begin{array}{lll} C_8 cycloalkyl-, & C_2 - C_6 alkenyl-B - C_3 - C_8 cycloalkyl-, \\ C_2 - C_6 alkynyl-B - C_3 - C_8 cycloalkyl-, & C_3 - C_8 cycloalkyl- \end{array}$ B—C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl-, phenyl-B—C₃-C₁₂cycloalkyl-, all of which, in turn, are mono- to poly-substituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, formyl, C₂-C₆ alkylcarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkyl
sulfinyl and $\mathrm{C_{1}\text{-}C_{6}}$ alkylsulfonyl; or

 $\begin{array}{lll} R_5 \ \ \text{is A-, A-}(C_1-C_6\text{alkyl})\text{-, A-}O-(C_1-C_6\text{alkyl})\text{-, A-}(C_3-15)\\ C_6\text{alkenyl}\text{-, A-}O-(C_4-C_6\text{alkenyl})\text{-, A-}(C_3-C_6-\text{alkynyl})\text{-, A-}O-(C_4-C_6\text{alkynyl})\text{-, A-}(C_3-C_8\text{cycloalkyl})\text{- or A-}O-(C_3-C_8\text{cycloalkyl})\text{-;} \end{array}$

A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or 20 fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

A1) by substituents independently selected from the group consisting of

halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, carboxy, =O, =S, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkoxy, C_3 - C_8 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_8 cycloalkyloxy, benzyl, benzyloxy, phenyl and phenoxy, 35 where the benzyl, benzyloxy, phenyl and phenoxy, in turn, may be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, amino, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or

A2) by substituents independently selected form the group consisting of $(R_{14})S(=O)(=NR_{13})-$, $(R_{14})(R_{15})S$ (=O)=N-; $-Si(R_{51})(R_{52})(R_{53})$, $-NR_{57}R_{58}$, 45 $-C(=O)NR_{57}R_{58}$, $-C(=S)NR_{57}R_{58}$, HC $(=NOR_{59})-$, $(C_1-C_6alkyl)C(=NOR_{59})-$

A3) by substituents independently selected from the group consisting of

formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, 55 C_4 - C_9 eycloalkylcarbonyl, C_4 - C_9 halocycloalkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_2 - C_7 haloalkoxycarbonyl, C_3 - C_7 al kenyloxycarbonyl, C_3 - C_7 alkynyloxycarbonyl, C_4 - C_9 cycloalkoxycarbonyl, C_2 - C_7 alkylthiocarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl monoto polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl and C_1 - C_6 alkoxy; or

A4) by substituents independently selected from the group 65 consisting of hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl,

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 C_2 - C_4 haloalkenyl, cyano, benzyl, phenyl, =C(R^{36})₂, =N-OH, =N-O- C_1 - C_4 -alkyl, =N-O- C_3 - C_4 alkenyl, =N-O- C_3 - C_4 alkynyl, =N-O- C_1 - C_4 haloalkyl, =N-O-benzyl and =N-O-phenyl, wherein the =N-O-benzyl and =N-O-phenyl are optionally substituted by one or more group selected from the group consisting of halogen, methyl, halomethyl; or

 R_5 is $-N = C(R_8)(R_9)$; or

 R_5 is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, C₁-C₆ alkyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)— $-CH_2-CH_2-CH(CH_3)-CH_3$, $-CH_2-CH_2-CH(CH_3)_2$, $-CH(CH_3)-CH(CH_3)_2$, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_2 - C_7 -alkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C₄-C₇-al kenyloxycarbonyl, C₄-C₇alkynyloxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, =O, -C(=O)NH₂, $-C(=O)NH(CH_3)$, $-C(=O)N(CH_3)_2$ and -C(=S)NH₂; or

 $\begin{array}{c} R^5 \text{ is selected from } G^1,\,G^2,\,G^3\text{-}G^4,\,G^5,\,G^6\text{-}G^7,\,G^8,\,G^9,\\ G^{10}\text{-}G^{11},\,G^{12},\,G^{13},\,G^{14},\,G^{15}\text{ and }G^{16}; \end{array}$

R₆ is selected from hydrogen and SH;

R₇ is hydrogen, halogen or C₁-C₄ alkyl;

R₈ and R₉, independently from each other, are hydrogen, halogen, cyano, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₂-C₁₂ alkynyl, C_1 - C_{12} alkoxy, formyl, C_2 - C_{12} alkylcarbonyl, C_3 - C_{12} alkenylcarbonyl, carboxy, C_2 - C_{12} alkoxycarbonyl and C_4 - C_{12} alkenyloxycarbonyl, or C_1 - C_{12} alkyl, C_2 - C_{12} alkenyl, C_2 - C_{12} alkenyl, C_1 - C_{12} alkoxy, C_2 - C_{12} alkylcarbonyl, C3-C12 alkenylcarbonyl, C2-C12 alkoxycarbonyl and C_4 - C_{12} alkenyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl and C₁-C₆ alkylsulfonyl; or R₈ and R₉ together from a C2-C8 alkylene bridge which may optionally be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, C₁-C₆ alkyl and C₁-C₆ haloalkyl; or R₈ and R₉, independently from each other, are the groups A-, A-O- or $A-(C_1-C_6alkyl)-;$

R₁₀ is H, C₁-C₄ alkyl, C₂-C₄ alkenyl or C₁-C₄ haloalkyl;

R₁₃ is hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ alkenyl, C₃-C₆ haloalkenyl, C₃-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ halocycloalkyl, phenyl and benzyl, or is phenyl and benzyl mono- to polysubstituted by halogen, cyano, hydroxy, C₁-C₆ alkyl, C₁-C₆ haloalkyl or C₁-C₆ alkoxy;

 R_{14} and R_{15} , independently of each other, are $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_8$ halocycloalkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ haloalkenyl, $C_2\text{-}C_6$ alkynyl, benzyl or phenyl, or benzyl or phenyl independently of each other, substituted by substituents selected from the group consisting of halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl and $C_1\text{-}C_6$ alkoxy;

R₅₁, R₅₂, R₅₃, independently of each other, are halogen, cyano, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkoxy, benzyl or phenyl;

 R_{54},R_{55},R_{56} , independently of each other, are C_1 - C_6 alkyl, C_3 - C_6 alkenyl, C_3 - C_8 cycloalkyl, C_3 - C_6 alkynyl, benzyl or phenyl:

R₅₇ and R₅₈, independently of each other, are hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ alkenyl, C₃-C₆ haloalkenyl, C₃-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ halocycloalkyl, phenyl or benzyl, where phenyl or benzyl for their part may be mono- to polysubstituted on the phenyl ring by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ alkoxy, or R₅₇ and R₅₈ together with their interconnecting nitrogen atom are aziridino, azetidino, pyrazolino, pyrazolidino, pyrrolino, pyrrolidino, imidazolino, imidazolidino, triazolino, tetrazolino, piperazino, piperidino, morpholino, thiomorpholino, each of which, in turn, may be mono- or polysubstituted by substituents selected from the group consisting of methyl, halogen, cyano;

 $\begin{array}{lll} R_{59} \ is \ hydrogen, C_1\text{-}C_6 \ alkyl, C_1\text{-}C_6 \ haloalkyl, C_3\text{-}C_6 \ alk-\\ enyl, \quad C_3\text{-}C_6 \quad haloalkenyl, \quad C_3\text{-}C_6 \quad alkynyl, \quad C_3\text{-}C_8\\ \text{cycloalkyl, } C_3\text{-}C_8 \quad halocycloalkyl, \ benzyl \ and \ phenyl, \\ \text{and benzyl \ and \ phenyl \ mono-} \ \ to \ polysubstituted \ by \\ \text{halogen, cyano, hydroxy, } C_1\text{-}C_6 \ alkyl, } C_1\text{-}C_6 \ haloalkyl \\ \text{or } C_1\text{-}C_6 \ alkoxy; \end{array}$

 R_{60} is hydrogen, $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_8$ halocycloalkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ haloalkenyl, $C_2\text{-}C_6$ alkynyl, benzyl or phenyl, or benzyl or phenyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl and $C_1\text{-}C_6$ alkoxy;

 R_{62} is hydrogen, $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, $C_1\text{-}C_6$ haloalkyl, $C_3\text{-}C_8$ halocycloalkyl, $C_3\text{-}C_6$ alkenyl, $C_3\text{-}C_6$ alkynyl, benzyl or phenyl, or benzyl or phenyl mono- to 35 polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl and $C_1\text{-}C_6$ alkoxy;

G¹ is a C₈-C₁₀ fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond 40 and is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl and cyano;

G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, 60 C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

G⁴ is C₃-C₁₂ cycloalkyl which is optionally substituted by 65 one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl,

 C_1 - C_4 alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

G⁵ is C₃-C₇ cycloalkyl which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl) silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, secbutyl, tert-butyl, n-pentyl, —CH₂(CH₃)—CH₂—CH₂—CH₃,—CH—CH(CH₃)—CH₂—CH₂—CH(CH₃)—CH₂—CH₂—CH(CH₃)₂, —CH₂—CH(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, C₂-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkenyl, C₂-C₆ alkenyloxy, C₃-C₆-alkenyloxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkynyloxycarbonyl, C₄-C₇ alkenyloxycarbonyl, C₄-C₇ alkylcarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, phenoxy, —C(—O)NH₂, —C(—O)NH₂, —C(—O)NH₂,

G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂ N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ alkynyloxy, C₃-C₆ alkynyloxy, C₃-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

G⁷ is methylene;

G8 is

$$R^{14'}$$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$
 $R^{14'}$

G9 is

 $\rm G^{10}$ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH(CH3), C(=O)N(CH3)2, C(=S)NH2, C(=S)NH(CH3), C(=S)N(CH3)2, SO2NH2, SO2NH(CH3), SO2N(CH3)2, C1-C6 alkeyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C3-C6 kaloalkenyloxy, C3-C6 haloalkoxy, C3-C6 alkynyloxy, C3-C6 haloalkoxy, C3-C6 haloalkoxy, C3-C6 haloalkoxy, C3-C6 haloalkoxy, C3-C6 haloalkylhio, C1-C6 alkylthio, C1-C6 alkylthio, C1-C6 haloalkylsulfinyl,

 $\begin{array}{l} C_1\text{-}C_6 \text{ alkylsulfonyl}, \ C_1\text{-}C_6 \ \text{haloalkylsulfonyl}, \ \text{phenyl}, \\ \text{2-phenyl-ethynyl} \ \text{and} \ \text{2-phenyl-ethyl}; \end{array}$

 G^{11} is methylene substituted by at least one group independently selected from C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, CN, C_1 - C_4 alkoxy and C_1 - C_4 haloalkoxy; G^{12} is

$$R^{29'}$$
 $R^{28'}$
 $R^{27'}$
 $R^{26'}$
 $R^{31'}$
 $R^{31'}$
 $R^{32'}$
 $R^{33'}$
 $R^{34'}$

 G^{13} is a $C_8\text{-}C_{11}$ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, COOH, tri(C_1-C_6-alkyl)silyl, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, C_3-C_6 haloalcycloalkyl, C_2-C_6 haloalkenyl, C_1-C_6alkoxy, C_1-C_6 haloalkoxy, C_2-C_7 alkylcarbonyl, C_2-C_7 alkoxy carbonyl, C_4-C_7 alkenyloxycarbonyl, C_4-C_7 alkynyloxycarbonyl, C_1-C_6 alkylsulfinyl, C_1-C_6 alkylsulfonyl, =O, -C(=O)NH_2, -C(=O)NH(CH_3), -C(=O)N(CH_3)_2 and -C(=S) NH_2; G^{14} is

G15 is

$$R^{58'} \qquad R^{56'} \qquad R^{55'} \qquad R^{58'} \qquad R^{58'} \qquad R^{58'} \qquad R^{58'} \qquad R^{58'} \qquad R^{58'} \qquad R^{59'} \qquad R^{50'}; \qquad R^{50'};$$

 G^{16} is

$$G^{17} \xrightarrow{R^{67'}} R^{65'} R^{63'} R^{61'} \xrightarrow{\#};$$

$$R^{68'} R^{66'} R^{66'} R^{64'} R^{62'}$$

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R^{69'}), O and S, it not being possible for each ring system to contain 65 —O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to six-membered ring system

to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N (CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S) N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ cycloalkoxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl;

R¹ is selected from the group consisting of hydrogen fluorine C₁-C₄ alkyl, C₁-C₄ haloalkyl:

rine C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; R^2 ', R^3 ', R^4 ' and R^5 ' are selected, independently of each other, from the group consisting of hydrogen, fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 alkylthio;

R^{11'}, Ř^{12'}, Ř^{13'} and R^{14'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH (CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆alkynyl, C₂-C₆ haloalkynyl, C₁-C₆alkoxy, C₁-C₆ haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyl, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkenyl, C₁-C₆alkylsulfinyl, C₁-C₆haloalkylthio, C₁-C₆alkylsulfinyl, C₁-C₆ haloalkylthio, C₁-C₆alkylsulfinyl, C₁-C₆ haloalkylthio, C₁-C₆alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

nyl, C₁-C₆alkylsulfonyl and C₁-C₆ haloalkylsulfonyl; R^{15'} and R^{16'} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₂ haloalkyl and C₁-C₂ cycloalkyl

C₁-C₄ haloalkyl and C₃-C₆ cycloalkyl; each R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹ and R²² are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl;

C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₃-C₆ cycloalkyl; R^{23'}, R^{24'} and R^{25'} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio;

R^{26'} is C(R^{36'})₂, N—OH, N—O—C₁-C₄-alkyl, N—O—C₂-C₄-alkenyl, N—O—C₂-C₄ alkynyl, N—O—C₁-C₄ haloalkyl N—O—C₂-C₄ haloalkenyl, N—O-benzyl, N—O-phenyl, N—O-halophenyl, O wherein the N—O-benzyl and N—O-phenyl may be substituted by one or more groups independently selected from the group consisting of halogen, methyl and halomethyl:

sisting of halogen, methyl and halomethyl; R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'} and R^{35'} are each independently selected from the group consisting of hydrogen, hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, cyano, benzyl and phenyl;

or R^{28'} and R^{29'} together with the two carbon atoms to which they are attached form a double bond;

each R³⁶ is independently selected from hydrogen, halogen and C₁-C₄ alkyl; R³⁷ and R³⁸ are selected in 1

R³⁷ and R³⁸ are selected independently of each other from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and C₂-C₄, haloalkyl

alkyl and C_1 - C_4 haloalkyl; $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are selected independently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio;

 $R^{45'}$, $R^{46'}$, $R^{47'}$, $R^{48'}$ and $R^{49'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂₁ C(=O)NH $(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3),$ $C(=S)N(CH_3)_2$ SO_2NH_2 , $SO_2NH(CH_3)$, SO_2 N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkynyl, C₁-C₆ haloalkoxy, C₁-C₆ haloalkoxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R^{50'} is selected from the group consisting of hydrogen

fluorine C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independent dently of each other, from the group consisting of hydrogen fluorine C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy

and C_1 - C_4 alkylthio; $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ are selected, independently of each 20 other, from the group consisting of hydrogen, halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH $(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3),$ haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkynyl, C_3 - C_6 alkynyloxy, C_3 - C_6 alkynyloxy, C_3 - C_6 cycloalkoxy, C_3 - C_6 halocycloalkoxy, benzyloxy, C_1 - C_6 30 alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen;

R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen fluorine cyano C₁-C₄ alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{66'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected indepen-

dently of each other from the group consisting of hydro- 40 gen, halogen, hydroxy, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C₁-C₄alkoxy, C₁-C₄ haloalkoxy and

 $\rm C_1\text{-}C_4$ alkylthio; $\rm R^{69'}$ is selected from hydrogen $\rm C_1\text{-}C_4$ alkyl, $\rm C_3\text{-}C_4$ alkenyl and C₁-C₄ alkylcarboxy; 45

n is 0 or 1:

p and q are independently selected from 0 and 1; and r, s and t are independently selected from 0 and 1;

or an agronomically acceptable salt/metallic complex/metalloidic complex/isomer/structural isomer/stereo-iso- 50 mer/diastereoisomer/enantiomer/tautomer/N-oxide thereof;

component B) is a strobilurin fungicide, a sterol biosynthesis inhibitor, a triazole fungicide, a pro-triazole fun- 55 gicide, a DMI fungicide, a SDHI fungicide, or a compound selected from the group consisting of Chlorothalonil, Fludioxonil, Cyprodinil, Mandipropamid, Fluazinam, Procymedone, Carbendazim, Abamectin, Clothianidin, Emamectin benzoate, Imidacloprid, 60 Tefluthrin, Mefenoxam, Orocymedone, Thiamethoxam, Lambda-cyhalothrin, Gamma-cyhalothrin, Profenofos, Lufenuron, Diflubenzuron, Cypermethrin, Novaluron, Bifenthrin, Methomyl, Chlopyrifos, Methamidophos, Endosulfan, Betacyfluthrin, Triflumuron, Teflubenzu- 65 ron, SulcotrioneAcephat, Glyphosate, Glufosinate, Mesotrione, Tembotrione, Sulcotrione, Auxins, Trinex732

apac-ethyl, Prohexadione-Ca, Paclobutrazol, Acibenzolar-S-methyl, Methyl-Jasmonate, Cis-Jasmone, Manganese, Cyflufenamid, Tebufloquin and Copper.

2. A fungicidal composition according to claim 1, wherein component A) is a compound of formula (I) wherein, R₁ and R₂ are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl and C₃-C₄ alkynyl;

or R₁ and R₂ together with the nitrogen atom to which they are connected form pyrrolidine or piperidine;

R₃ represents hydrogen, halogen, cyano, mercapto, hydroxy, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ haloalkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, pyrrolidino, imidazolino, triazolino, tetrazolino, formyl, C2-C5 alkylcarbonyl, $\rm C_2\text{-}C_5$ haloalkyl
carbonyl, $\rm C_1\text{-}C_6$ alkylthio, $\rm C_1\text{-}C_6$ alkyl sulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl or C₁-C₆ hydroxyalkyl;

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₁-C₄ alkylthio, C₁-C₄ alkylsulfinyl, C₁-C₄ alkylsulfonyl, methylamino or dimethylamino;

 $\begin{array}{lll} R_5 \ \ represents \ \ hydrogen, \ C_1\text{-}C_{12} \ \ alkylsulfonyl, \ C_1\text{-}C_{12} \\ alkyl, C_3\text{-}C_{12} \ alkenyl, C_3\text{-}C_{12} \ alkynyl, or is \ C_1\text{-}C_{12} \ alkyl, \end{array}$ C2-C12 alkenyl, C2-C12 alkynyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, azido, formyl, C₂-C₇ alkylcarbonyl, C₂-C₇ haloalkylcarbonyl, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C1-C6 haloalkoxy, C1-C6 alkylthio, C1-C6 alkylsulfinyl and C_1 - C_6 alkyl
sulfonyl; or

 $R_5 \quad is \quad (R_{51})(R_{52})(R_{53})Si - , \quad (R_{51})(R_{52})(R_{53})Si - (C_1 -$ C₁₂alkyl)-, $(R_{51})(R_{52})(R_{53})Si-(C_3-C_8cycloalkyl)-,$ $(R_{54}O)(R_{55}O)(R_{56}O)Si$ —, $(R_{54}O)(R_{55}O)(R_{56}O)Si$ – $(C_1-C_{12}alkyl)$ - $(R_{54}O)(R_{55}O)(R_{56}O)S(C_3$ or C₈cycloalkyl)-; or

 R_5 is $C_1\text{-}C_6$ alkyl-B— $C_1\text{-}C_{12}$ alkyl-, $C_2\text{-}C_6$ alkenyl-B— $C_1\text{-}$ C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C_{12} alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁- C_{12} alkyl-, phenyl-B— C_1 - C_{12} alkyl-, C_1 - C_6 alkyl-B— C₂-C₆alkenyl-B—C₂-C₁₂alkenyl-, C_2 - C_{12} alkenyl-, $\begin{array}{lll} & C_2\text{-}C_6\text{alkynyl-}B\text{--}C_2\text{-}C_{12}\text{alkenyl-}, & C_3\text{--}C_8\text{cycloalkyl-}B\text{--}C_2\text{--}C_{12}\text{alkenyl-}, & \text{benzyl-}B\text{--}C_2\text{--}C_{12}\text{alkenyl-}, & \text{phenyl-}B\text{--}C_2\text{--}C_{12}\text{alkenyl-}, & C_1\text{--}C_6\text{alkyl-}B\text{--}C_2\text{--}C_1\text{--}C_6\text{alkyl-}B\text{--}C_2\text{--}C_1\text{--}C_6\text{--}C_1\text{--}C_6\text{--}C_1\text{--}C_$ C₁₂alkynyl-, C₂-C₆alkenyl-B—C₂-C₁₂alkynyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkynyl-, C_3 - C_8 cycloalkyl-nyl-B-C₂-C₁₂alkynyl-, C_1 - C_6 alkyl-B— C_3 - $\label{eq:control_control} C_8 cycloalkyl-, \qquad C_2\text{-}C_6 alkenyl-B - C_3\text{-}C_8 cycloalkyl-,$ $\hbox{$C_2$-$C_6$alkynyl-$B$--$C_3$-$C_8$cycloalkyl-, C_3-C_8cycloalkyl-}$ phenyl-B—C₃-C₁₂cycloalkyl-, wherein the group B is —C(=O)—, selected from —C(=S)— $-C(=NOR_{59}) -C(R_{60})=NO--, -ON=C$ -S(=O)-, -S(=O)2-, -S(=O) $(=NR_{13})-, -S(=O)(R_{14})=N-, -N=S(=O)$ (R_{14}) —, $-N(R_{62})$ —C(=O)—, -C(=O)— $N(R_{62})$ —, $-N(R_{62})$ — SO_2 — or — SO_2 — $N(R_{62})$ —; or

 R_5 is C_1 - \tilde{C}_6 alkyl- \tilde{B} — C_1 - C_{12} alkyl-, C_2 - C_6 alkenyl-B— C_1 - C_2 - C_6 alkynyl-B— C_1 - C_{12} alkyl-, C₁₂alkyl-, C₃-C₈cycloalkyl-B—C₁-C₁₂alkyl-, benzyl-B—C₁-C₁₂alkyl-, phenyl-B—C₁-C₁₂alkyl-, C₁-C₆alkyl-B- C_2 - C_6 alkenyl-B— C_2 - C_{12} alkenyl-, C_2 - C_{12} alkenyl-, C_2 - C_6 alkynyl-B— C_2 - C_{12} alkenyl-, C_3 - C_8 cycloalkyl $B-C_2-C_{12}$ alkenyl-, benzyl- $B-C_2-C_{12}$ alkenyl-, phe- $\ \, \text{nyl-B---} C_2\text{--}C_{12} \\ \text{alkenyl-},$ C_1 - C_6 alkyl-B— C_2 -C₂-C₆alkenyl-B—C₂-C₁₂alkynyl-, C₁₂alkynyl-, $\label{eq:c2-C6-alkynyl-B} \textbf{C_2-C}_{6} alkynyl-\textbf{B-C}_{2}$-$\textbf{C_{12}}alkynyl-, \quad \textbf{C_{3}-C}_{8} cycloalkyl-$ B—C₂-C₁₂alkynyl-, benzyl-B—C₂-C₁₂alkynyl-, phe- ⁵ C₁-C₆alkyl-B—C₃nyl-B—C₂-C₁₂alkynyl-, C₂-C₆alkenyl-B—C₃-C₈cycloalkyl-, C₈cycloalkyl-, $\label{eq:c2-C6-alkynyl-B-C3-C8-cycloalkyl-} C_2\text{-}C_6\text{alkynyl-B---}C_3\text{-}C_8\text{cycloalkyl--},\ C_3\text{-}C_8\text{cycloalkyl--}$ B—C₃-C₈cycloalkyl-, benzyl-B—C₃-C₁₂cycloalkyl-, phenyl-B—C₃-C₁₂cycloalkyl-, all of which, in turn, are mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, formyl, C_2 - C_6 alkylcarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 $_{15}$ alkylsulfinyl and C₁-C₆ alkylsulfonyl; or

R₅ is selected from A-, A-(C₁-C₆alkyl)-, A-O—(C₁-C₆alkyl)-, A-(C₃-C₆alkenyl)-, A-O—(C₄-C₆alkenyl)-, A-(C₃-C₆-alkynyl)-, A-O—(C₄-C₆alkynyl)-, A-(C₃-C₈cycloalkyl)- and A-O—(C₃-C₈cycloalkyl)-;

A is a three- to ten-membered monocyclic or fused bicyclic ring system which can be aromatic, partially saturated or fully saturated and can contain 1 to 4 hetero atoms selected from the group consisting of nitrogen, oxygen and sulphur, it not being possible for each ring system to 25 contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the three- to ten-membered ring system to be itself mono- or polysubstituted

A1) by substituents independently selected from the group consisting of

halogen, cyano, nitro, hydroxy, mercapto, nitro, azido, formyl, carboxy, =O, =S, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkynyl, C_3 - C_8 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alk- 35 enyloxy, C_3 - C_6 haloalkenyloxy, C_3 - C_6 alkynyloxy, C_3 - C_8 cycloalkyloxy, C_3 - C_8 halocycloalkyloxy, C_3 - C_8 cycloalkenyloxy, C_3 - C_8 halocycloalkenyloxy, benzyl, benzyloxy, phenyl and phenoxy, where the benzyl, benzyloxy, phenyl and phenoxy, in turn, may be mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, nitro, hydroxy, mercapto, amino, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylsulfinyl and C_1 - C_6 alkylsulfonyl; or 45

A3) by substituents independently selected from the group consisting of

formyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_3 - C_7 alkenylcarbonyl, C_3 - C_7 haloalkenylcarbonyl, C_4 - C_9 cycloalkylcarbonyl, C_2 - C_7 alkoxycarbonyl, C_4 - C_7 al kenyloxycarbonyl, C_4 - C_7 alkynyloxycarbonyl, C_4 - C_9 cycloalkoxycarbonyl and benzyloxycarbonyl, and benzyloxycarbonyl mono- to polysubstituted by substituents independently selected from the group consisting of halogen, cyano, hydroxy, C_1 - C_6 alkyl, C_1 - C_6 55 haloalkyl and C_1 - C_6 alkoxy; or

A4) by substituents independently selected from the group consisting of hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, halogen, C_1 - C_4 haloalkyl, C_2 - C_4 haloalkenyl, cyano, benzyl, phenyl, =C(R^{36})₂, 60 =N—OH, =N—O— C_1 - C_4 -alkyl, =N—O— C_3 - C_4 alkenyl, =N—O— C_3 - C_4 alkynyl, =N—O— C_1 - C_4 haloalkyl, =N—O— C_3 - C_4 haloalkenyl, =N—O-benzyl and =N—O-phenyl, wherein the =N—O-benzyl and =N—O-phenyl are optionally substituted by one or more group selected from the group consisting of halogen, methyl, halomethyl; or

 R_5 is a $C_8\text{-}C_{11}$ spirobicyclic system containing 0, 1 or 2 O, S or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO $_2$, OH, SH, CHO, COOH, tri(C $_1\text{-}C_6\text{-alkyl}$)silyl, C $_1\text{-}C_6$ alkyl, —CH(CH $_3$)—CH $_2$ —CH $_2$ —CH $_3$, —CH—CH(CH $_3$)—CH $_2$ —CH $_3$, —CH—CH(CH $_3$)—CH $_3$ —CH $_2$ —CH(CH $_3$)—CH(CH $_3$)—CH(CH $_3$)—CH(CH $_3$)—Ch(CH $_3$)—C1-C $_6$ haloalkyl, C $_3\text{-}C_6$ cycloalkyl, C $_3\text{-}C_6$ halocycloalkyl, C $_2\text{-}C_6$ alkenyl, C $_2\text{-}C_6$ haloalkenyl, C $_1\text{-}C_6$ alkoxy, C $_1\text{-}C_6$ haloalkoxy, C $_2\text{-}C_7\text{-alkylcarbonyl}$, C $_2\text{-}C_7\text{-alkoxycarbonyl}$, C $_4\text{-}C_7\text{-alkynyloxycarbonyl}$, C $_1\text{-}C_6$ alkylsulfinyl, C $_1\text{-}C_6$ alkylsulfonyl, —O, —C(—O)NH(CH $_3$), —C(—O)NH(CH $_3$), —C(—O)N(CH $_3$) $_2$ and —C(—S) NH $_2$;

R₆ is hydrogen;

R₇ is hydrogen or C₁-C₄ alkyl.

3. A fungicidal composition according to claim 1, wherein 20 component A) is a compound of formula (I) wherein R_1 and R_2 are each independently selected from hydrogen and C_1 - C_4 alkyl;

or R₁ and R₂ together with the nitrogen atom to which they are connected form pyrrolidine or piperidine;

R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, amino, C₁-C₂ alkylamino, di(C₁-C₆alkyl)amino, pyrrolidino, imidazolino, triazolino, formyl, phenyl, C₂-C₄ alkylcarbonyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl or C₁-C₆ hydroxyalkyl;

 R_4 is selected from fluorine, chlorine, bromine, C_1 - C_4 alkyl, C_1 - C_4 alkenyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_3 - C_6 cycloalkyl;

 $\begin{array}{c} R_5 \text{ is selected from } G^1,\,G^2,\,G^3\text{-}G^4,\,G^5,\,G^6\text{-}G^7,\,G^8,\,G^9,\\ G^{10}\text{-}G^{11},\,G^{12},\,G^{13},\,G^{14},\,G^{15} \text{ and } G^{16}; \end{array}$

R₆ is hydrogen;

 R_7 is selected from hydrogen and C_1 - C_4 alkyl;

G¹ is a C₈-C₁₀ fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl and cyano;

G² is C₃-C₆ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl)silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃—CH—CH(CH₃)—CH₂—CH₃—CH₂—CH(CH₃)—CH₂—CH(CH₃)—CH₂—CH(CH₃)—CH₂—CH(CH₃)₂, —CH(CH₃)—CH(CH₃)₂, C₂-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₆ alkylcarbonyl, C₂-Cȝ alkylcarbonyl, C₄-Cȝ alkylcarbonyl, C₄-Cȝ alkylcarbonyl, C₄-Cȝ alkylcarbonyl, C₁-C₆ alkylcarbonyl, C₁-Cȝ alky

G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

G⁴ is C₃-C₁₂ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, $\mathrm{C}_1\text{-}\mathrm{C}_4$ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;

G⁵ is C₃-C₇ cycloalkyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, COOH, tri(C₁-C₆-alkyl) silyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, secbutyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₂—CH(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)₂, —CH (CH₃)—CH(CH₃)₂, C₂-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆-alkenyloxy, C₂-C₇ alkylcarbonyl, C₂-C₇ alkoxycarbonyl, C₄-C₇ al kenyloxycarbonyl, C₄-C₇ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, phenoxy, —C(—O)NH₂, —C(—O)NH(CH₃), —C(—O)N(CH₃)₂ and —C(—S)NH₂;

G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂ N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ haloalkylthio, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl;

G⁷ is methylene;

G⁸ is

$$\mathbb{R}^{25} = \mathbb{R}^{24'} \xrightarrow{\mathbb{R}^{21'}} \mathbb{R}^{19'} \xrightarrow{\mathbb{R}^{17'}} \mathbb{R}^{15'} \xrightarrow{\mathbb{R}^{15'}} \mathbb{R}^{15'} \xrightarrow{\mathbb{R}^{25'}} \mathbb{R}^{25'} \xrightarrow{\mathbb{R}^{22'}} \mathbb{R}^{20'} \xrightarrow{\mathbb{R}^{18'}} \mathbb{R}^{16'}$$

G9 is

$$R^{14'}$$
 $R^{11'}$
 $R^{2'}$
 $R^{12'}$
 $R^{12'}$
 $R^{4'}$

 G^{10} is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH(CH3), C(=O)N(CH3)2, C(=S)NH2, C(=S)NH(CH3), C(=S)N(CH3)2, SO2NH2, SO2NH(CH3)3, SO2 60 N(CH3)2, C1^-C6 alkyl, C1^-C6 haloalkyl, C3^-C6 cycloalkyl, C2^-C6 alkenyl, C2^-C6 haloalkenyl, C2^-C6 alkynyl, C2^-C6 haloalkynyl, C1^-C6 haloalkenyl, C2^-C6 haloalkoxy, C3^-C6 alkenyloxy, C3^-C6 haloalkenyloxy, C3^-C6 alkynyloxy, C3^-C6 cycloalkoxy, C3^-C6 haloalkylhio, C1^-C6 haloalkylhio, C1^-C6 alkylsulfinyl, C1^-C6 haloalkylsulfinyl, C1^-C6

alkylsulfonyl, C_1 - C_6 haloalkylsulfonyl, phenyl, 2-phenyl-ethynyl and 2-phenyl-ethyl;

 G^{11} is methylene substituted by at least one group independently selected from C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, CN, C_1 - C_4 alkoxy and C_1 - C_4 haloalkoxy; G^{12} is

$$R^{30'}$$
 $R^{31'}$
 $R^{32'}$
 $R^{32'}$
 $R^{33'}$
 $R^{34'}$

 $\rm G^{13}$ is a $\rm C_8$ - $\rm C_{11}$ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, CN, NO_2, OH, SH, CHO, COOH, tri(C_1-C_6-alkyl)silyl, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, C_3-C_6 halocycloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_2-C_7 alkylcarbonyl, C_2-C_7 alkoxycarbonyl, C_4-C_7 alkenyloxycarbonyl, C_4-C_7 alkenyloxycarbonyl, C_4-C_6 alkylsulfinyl, C_1-C_6 alkylsulfinyl, C_1-C_6 alkylsulfonyl, =O, -C(=O)NH_2, -C(=O)NH(CH_3), -C(=O)N(CH_3)_2 and -C(=S) NH_2; G^{14} is

G15 is

35

40

45
$$R^{57'}$$
 $R^{56'}$ $R^{55'}$ $R^{56'}$ $R^{55'}$ $R^{54'}$ $R^{53'}$ $R^{59'}$ $R^{50'}$ $R^{51'}$ $R^{50'}$ $R^{50'}$

 G^{16} is

$$G^{17} \xrightarrow{(1)_r} (1)_s \xrightarrow{(1)_t} \#_{R^{68'}} R^{68'} R^{66'} R^{64'} R^{62'}$$

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S, it not being possible for each ring system to contain —O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to six-membered ring system

to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N $(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, C(=S) $N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, $SO_2N(CH_3)_2$, C_1 - C_6 5 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, C_2 - C_6 alkenyl, $\begin{array}{l} C_2\text{-}C_6 \text{ haloalkenyl, } C_2\text{-}C_6 \text{ alkynyl, } C_2\text{-}C_6 \text{ haloalkynyl, } \\ C_1\text{-}C_6 \text{ alkoxy, } C_1\text{-}C_6 \text{ haloalkoxy, } C_3\text{-}C_6 \text{ alkenyloxy, } \end{array}$ C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, 10 C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl;

R¹ is selected from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl;

R2', R3', R4' and R5' are selected, independently of each other, from the group consisting of hydrogen, fluorine, $\mathrm{C_1\text{-}C_4}$ alkyl, $\mathrm{C_1\text{-}C_4}$ haloalkyl, $\mathrm{C_1\text{-}C_4}$ alkoxy and $\mathrm{C_1\text{-}C_4}$

R¹¹, R¹², R¹³ and R¹⁴ are selected, independently of each 20 other, from the group consisting of hydrogen, halogen, CN, NO2, OH, SH, CHO, C(=O)NH2, C(=O)NH (CH_3) , $C(=O)N(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, benzyloxy, C₁-C₆ alkylthio, C₁-C₆ 30 haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfi-

nyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl; $R^{15'}$ and $R^{16'}$ are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl,

 C_1 - C_4 haloalkyl and C_3 - C_6 cycloalkyl; each R^{17} , R^{18} , R^{19} , R^{20} , R^{21} and R^{22} are selected independently of each other, from the group consisting of hydrogen, halogen, cyano, C1-C4 alkyl, C1-C4 haloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_3 - C_6 cycloalkyl; $R^{23'}$, $R^{24'}$ and $R^{25'}$ are independently selected from the 40

group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, $\rm C_3$ - $\rm C_6$ halocycloalkyl and $\rm C_1$ - $\rm C_4$ alkylthio; $\rm R^{26'}$ is $\rm C(R^{36'})_2,\ N-OH,\ N-O-C_1$ - $\rm C_4$ -alkyl, $\rm N-O-$

 C_2 - C_4 -alkenyl, N—O— C_2 - C_4 alkynyl, N—O— C_1 - C_4 45 haloalkyl, N—O—C2-C4 haloalkenyl, N—O-benzyl, N—O-phenyl, N—O-halophenyl, O wherein the N—Obenzyl and N-O-phenyl may be substituted by one or more groups independently selected from the group con-

sisting of halogen, methyl and halomethyl; $R^{27'},R^{28'},R^{29'},R^{30'},R^{31'},R^{32'},R^{33'},R^{34'}$ and $R^{35'}$ are each independently selected from the group consisting of hydrogen, hydroxyl, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C₁-C₄ alkoxy, halogen, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, cyano, benzyl and phenyl;

or R^{28'} and R^{29'} together with the two carbon atoms to which they are attached form a double bond;

each R^{36'} is independently selected from hydrogen, halogen and C_1 - C_4 alkyl; $R^{37'}$ and $R^{38'}$ are selected independently of each other from 60

the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl and $\rm C_1$ -C_4 haloalkyl; $\rm R^{39'},\,R^{40'},\,R^{41'},\,R^{42'},\,R^{43'}$ and $\rm R^{44'}$ are selected independent

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C1-C4 alkyl, C1-C4 65 haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are selected, independently of each other, from the group consisting of hydrogen, halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH $(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3),$ $C(=S)N(CH_3)_2$, SO_2NH_2 , $SO_2NH(CH_3)$, SO_2 $\begin{array}{llll} N(CH_3)_2, & C_1\text{-}C_6 & alkyl, & C_1\text{-}C_6 & haloalkyl, & C_3\text{-}C_6 \\ cycloalkyl, & C_2\text{-}C_6 & alkenyl, & C_2\text{-}C_6 & haloalkenyl, & C_2\text{-}C_6 \\ \end{array}$ alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C1-C6 alkylthio, C1-C6 haloalkylthio, C1-C6 alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R^{50'} is selected from the group consisting of hydrogen,

fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl; $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independent dently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₂-C₄ alkoxy and C₁-C₄ alkylthio;

R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ are selected, independently of each other, from the group consisting of hydrogen, halogen, $CN, NO_2, OH, SH, CHO, C(=O)NH_2, C(=O)NH$ $(CH_3), C(=O)N(CH_3)_2, C(=S)NH_2, C(=S)NH(CH_3),$ C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂ N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C2-C6 haloalkynyl, C2-C6 alkoxy, C2-C6 haloalkoxy, phenyl, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, benzyloxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C_1 - C_6 alkylsulfonyl and C_1 - C_6 haloalkylsulfonyl; provided that at least one of $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ is not

R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen, fluorine, cyano, C₁-C₄ alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected indepen-

dently of each other from the group consisting of hydrogen, halogen, hydroxy, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio;

 R^{69} is selected from hydrogen, C_1 - C_4 alkyl, C_3 - C_4 alkenyl and C_1 - C_4 alkylcarboxy;

n is 0 or 1;

p and q are independently selected from 0 and 1;

r, s and t are independently selected from 0 and 1.

4. A fungicidal composition according to claim 1, wherein component A) is a compound of formula (I) wherein R₁ and 50 R₂ are each C₁-C₄ alkyl;

R₃ represents hydrogen, halogen, cyano, C₁-C₄ alkyl, C_1 - C_4 haloalkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, C_1 - C_4 alkylthio, C_1 - C_4 alkylsulfinyl or C_1 - C_4 alkylsulfonyl;

R₄ is selected from methyl, ethyl, methoxy, fluorine and chlorine;

R₆ is hydrogen;

 R_7 is hydrogen or C_1 - C_4 alkyl.

5. A fungicidal composition according to claim 1, wherein component A) is a compound of formula (I) wherein R₁ and R₂ are each independently selected from methyl, ethyl and isopropyl;

R₃ represents hydrogen, halogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, cyclopropyl, ethynyl or C₁-C₄ alkoxy;

R₄ is selected from methyl, methoxy, fluorine and chlorine; R₆ is hydrogen;

R₇ is hydrogen.

- **6**. A fungicidal composition according to claim **1**, wherein component A) is a compound of formula (I) wherein
 - R_1 is methyl;
 - R₂ is ethyl;
 - R₃ is selected from hydrogen, bromine, iodine, methyl, 5 CHF₂, cyclopropyl, ethynyl and methoxy;
 - R_{4} is methyl;
 - R₆ is hydrogen;
 - R_7 is hydrogen.
- 7. A fungicidal composition according to claim 3, wherein $\,^{10}$ component A) is a compound of formula (I) wherein R_5 is selected from $G^1,\,G^2,\,G^5,\,G^6\text{-}G^7,\,G^8,\,G^9,\,G^{10}\text{-}G^{11},\,G^{12},\,G^{14},\,G^{15}$ and $G^{16}.$
- **8**. A fungicidal composition according to claim **3**, wherein component A) is a compound of formula (I) wherein R_5 is 15 selected from G^2 , G^5 , G^6 - G^7 , G^8 , G^9 , G^{10} - G^{11} , G^{14} and G^{16} .
- **9**. A fungicidal composition according to claim **3**, wherein component A) is a compound of formula (I) wherein R_5 is selected from G^2 , G^5 , G^8 and G^{10} - G^{11} .
- 10. A fungicidal composition according to claim 3, 20 wherein component A) is a compound of formula (I) wherein G^1 is a C_9 - C_{10} fused bicyclic ring system which may be saturated or comprise one carbon-carbon double bond and is optionally substituted by one or more groups independently selected from C_1 - C_4 alkyl, fluorine, methoxy and C_1 - C_4 fluoroalkyl;
 - $\rm G^2$ is $\rm C_3\text{-}C_6$ cycloalkenyl, which is optionally substituted by one or more groups independently selected from halogen, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH_3)—CH_2— 30 CH_2—CH_3, —CH—CH(CH_3)—CH_2—CH_3, —CH_2—CH_2—CH(CH_3)_2, CH_2—CH(CH_3)—CH(CH_3)_2, CH(CH_3)—CH(CH_3)_2, C_2\text{-}C_6 haloalkyl, C_1\text{-}C_6 alkoythio;
 - G³ is phenyl, which is optionally substituted by one or 35 more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₁-C₄ fluoroalkyl, C₁-C₄ alkoxy and halogen;
 - G⁴ is C₅-C₆ cycloalkyl which is optionally substituted by one or more groups independently selected from 40 hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy, halogen and cyano, wherein the alkyl groups are optionally substituted by one or more halogen;
 - G⁵ is C₃-C₇ cycloalkyl, which is substituted by one or more 45 groups independently selected from ethyl, n-propyl, isopropyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)—CH(CH₃)₂, 50 C₂-C₆ haloalkyl, C₁-C₆ alkoxy, C₃-C₄-alkenyloxy, phenoxy and C₁-C₆ alkylthio;
 - G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, 55 NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N(CH₃)₂, C(=S)NH₂, C(=S)NH(CH₃), C(=S)N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂ N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₁-C₆ alkynyloxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl;
 - G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, OH, SH, CHO, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃,

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- cyclopropyl, CH=CH₂, C(CH₃)=CH₂, CH=CH (CH₃), C(CH₃)=CH(CH₃), CH=C(CH₃)₂, C(CH₃) =C(CH₃)₂, CH=CF₂, CH=CCl₂, C=CH, methoxy, ethoxy, iso-propyloxy, phenyl, OCHF₂, OCH₂—C=CH, OCH(CH₃)—C=CH, SCH₃, SCH₂CH₃, S(=O)CH₃, S(=O)CH₂CH₃, S(=O)₂CH₃ and S(=O)₂CH₂CH₃;
- G¹¹ is methylene substituted by at least one group independently selected from C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₁-C₄ haloalkoxy;
- G¹³ is a C₈-C₁₁ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ alkylthio and —O;
- \boldsymbol{G}^{17} is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, $N(R^{69})$, O and S, it not being possible for each ring system to contain -O—O—, —S—S— and —O—S— fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, NO₂, OH, SH, CHO, C(=O)NH₂, C(=O)NH(CH₃), C(=O)N $(CH_3)_2$, $C(=S)NH_2$, $C(=S)NH(CH_3)$, N(CH₃)₂, SO₂NH₂, SO₂NH(CH₃), SO₂N(CH₃)₂, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₆ alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₆ alkenyloxy, C₃-C₆ haloalkenyloxy, C₃-C₆ alkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₁-C₆ alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;
- R^{1'} is selected from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl and C₁-C₄ fluoroalkyl;
- R^{2'}, R^{3'}, R^{4'} and R^{5'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy and C₁-C₄ alkylthio;
- R^{11'}, Ř^{12'}, Ř^{13'} and R^{14'} are selected, independently of each other, from the group consisting of hydrogen, cyano, halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₅ alkylthio:
- and C₁-C₆ alkylthio; R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are independently selected from the group consisting of hydrogen, halogen, methyl, ethyl, isopropyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃ and CF₂CF₃;
- CHF—CH₃, CF₂—CH₃ and CF₂CF₃; R^{23'}, R^{24'} and R^{25'} are independently selected from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl and C₁-C₄ alkylthio;
- $\begin{array}{c} C_3\text{-}C_6 \text{ halocycloalkyl and } C_1\text{-}C_4 \text{ alkylthio}; \\ R^{26'} \text{ is } N\text{--}OH, N\text{--}O\text{--}C_1\text{-}C_4 \text{ alkyl, } N\text{--}O\text{--}C_2\text{-}C_4 \text{ alkenyl, } N\text{--}O\text{--}C_2\text{-}C_4 \text{ alkenyl, } N\text{--}O\text{--}C_1\text{--}C_4 \text{ haloalkyl, } N\text{--}O\text{--}C_2\text{--}C_4 \text{ haloalkenyl, } N\text{--}O\text{--}benzyl, } N\text{--}O\text{--}phenyl, } N\text{--}O\text{--}halophenyl, } O \text{ or } C(R^{36'})_2; \\ R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'} \text{ and } R^{35'} \text{ are each} \end{array}$
- R²⁷, R²⁸, R²⁹, R³⁰, R³¹, R³¹, R³², R³³, R³⁴ and R³⁵ are each independently selected from the group consisting of hydrogen, hydroxyl, C₁-C₄ alkyl, C₁-C₄ alkoxy and halogen;
- or R^{28} and R^{29} together with the two carbon atoms to which they are attached form a double bond;
- each $R^{36'}$ is independently selected from hydrogen, halogen and C_1 - C_4 alkyl;
- R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are selected independently of each other from a group consisting of

- hydrogen, halogen, methyl, ethyl, isopropyl, monofluoromethyl, polyfluoromethyl, monofluoroethyl, and polyfluoroethyl:
- R⁴⁵′, R⁴⁶′, R⁴⁷′, R⁴⁸′ and R⁴⁹′ are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, C=CH, CH=CH₂, C(CH₃)=CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, ethoxy, difluoromethoxy, trifluoromethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{50'} is selected from the group consisting of hydrogen, fluorine, C₁-C₄ alkyl, C₁-C₄ haloalkyl;

 $R^{51'}$, $R^{52'}$, $R^{53'}$, $R^{54'}$, $R^{55'}$ and $R^{56'}$ are selected, independently of each other, from the group consisting of hydrogen, fluorine, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_2 - C_4 alkoxy and C_1 - C_4 haloalkoxy;

 $R^{57'}$, $R^{58'}$, $R^{59'}$ and $R^{60'}$ are selected, independently of each other, from the group consisting of hydrogen, cyano, halogen, C_1 - C_6 alkyl and C_1 - C_6 haloalkyl;

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen;

R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen, fluorine, cyano, C₁-C₄ alkyl and C₁-C₄ haloalkyl;

alkyl and C_1 - C_4 haloalkyl; $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independently of each other from the group consisting of hydrogen, fluorine, cyano, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 alkoxy and C_1 - C_4 haloalkoxy;

R^{69'} is selected from hydrogen, C₁-C₄ alkyl and C₁-C₄ 30 alkylcarboxy;

n is 0 or 1;

p and q are independently selected from 0 and 1; r and s are 0 and t is 1 or 0.

- 11. A fungicidal composition according to claim 3, 35 wherein component A) is a compound of formula (I) wherein G^1 is a saturated C_{10} fused bicyclic ring system which is optionally substituted by one or more groups independently selected from C_1 - C_4 alkyl, fluorine, methoxy and C_1 - C_4 fluoroalkyl:
 - G² is a C₅-C₆ cycloalkenyl group optionally substituted by one or more fluorine atoms;
 - G³ is phenyl, which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, CHF₂, CF₃, C₁-C₄ alkoxy and halogen;
 - G⁴ is C₅-C₆ cycloalkyl which is optionally substituted by one or more groups independently selected from hydroxyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ alkoxy and halogen;
 - G^5 is C_5 - C_6 cycloalkyl, which is substituted by one or more 50 groups independently selected from ethyl, n-propyl, isopropyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH—CH(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)—CH₃, —CH₂—CH₂—CH(CH₃)—CH(CH₃) 55 and C_2 - C_6 haloalkyl;
 - G⁶ is phenyl, which must be substituted by at least one fluorine and is optionally further substituted by one or more groups independently selected from halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ alkoxy;

G⁷ is methylene;

G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from hydrogen, halogen, CN, OH, methyl, ethyl, n-propyl, iso-propyl, CH₂F, CHF₂, CF₃, CHF—CH₃, CF₂—CH₃, CF₂—CF₃, 65 CH—CH₂, C(CH₃)—CH₂, CH—CH(CH₃), C(CH₃)—CH(CH₃), CH—CH(CH₃), C(CH₃)

- CH=CF₂, CH=CCl₂, C=CH, methoxy, ethoxy, isopropyloxy, phenyl and OCHF₂;
- G¹¹ is methylene substituted by at least one group independently selected from C₁-C₄ alkyl, C₁-C₄ haloalkyl and C₁-C₄ alkoxy;
- G¹³ is a C₈-C₁₁ spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ alkylthio and —O:
- G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 to 4 members selected from the group consisting of N, N(R⁶⁹), O and S it not being possible for each ring system to contain —O—O—,—S—S—and—O—S—fragments, and it being possible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or benzyl, wherein the phenyl or benzyl are optionally substituted by halogen, CN, C₁-C₄ alkyl or C₁-C₄ haloalkyl;

R^{1'} is selected from the group consisting of hydrogen, fluorine, methyl, CH₂F and CF₃;

R^{2'}, R^{3'}, R^{4'} and R^{5'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, CH₂F, CF₃ and methoxy;

R¹¹, R¹², R¹³ and R¹⁴ are selected, independently of each other, from the group consisting of hydrogen, halogen, cyano, C₁-C₄ alkyl, CHF₂, CF₃ and C₁-C₄ alkoxy;

cyano, C₁-C₄ alkyl, CHF₂, CF₃ and C₁-C₄ alkoxy; R^{15'}, R^{16'}, R^{17'}, R^{18'}, R^{19'}, R^{20'}, R^{21'} and R^{22'} are each independently selected from hydrogen, fluorine, methyl, ethyl, CH₂F, CHF₂, CF₃ and isopropyl;

R^{23'}, R^{24'} and R^{25'} are independently selected from the group consisting of hydrogen, methyl, fluorine, chlorine, bromine, ethyl, CH₂F, CH₂, CF₃ and isopropyl;

R^{26'} is selected from the group consisting of N—OH, N—O—C₁-C₄ alkyl, N—O—C₂-C₄ alkenyl, N—O—C₂-C₄ alkynyl, N—O—C₁-C₄ haloalkyl, N—O—C₂-C₄ haloalkenyl, N—O-benzyl, N—O-phenyl, N—O-halophenyl, O, and C(R^{36'}):

halophenyl, O, and C(R^{36'}); R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'} and R^{35'} are each independently selected from the group consisting of hydrogen, C₁-C₄ alkyl and halogen;

hydrogen, C₁-C₄ alkyl and halogen; or R^{27'} and R^{28'} together with the two carbon atoms to which they are attached form a double bond;

each R³⁶ is independently selected from hydrogen, halogen and C₁-C₄ alkyl:

gen and C₁-C₄ alkyl; R^{37'}, R^{38'}, R^{39'}, R^{40'}, R^{41'}, R^{42'}, R^{43'} and R^{44'} are independently selected from the group consisting of hydrogen, fluorine, methyl and trifluoromethyl;

R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are independently selected from the group consisting of hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, C≡CH, CH≡CH₂, C(CH₃)≡CH₂, CF₃, CHF₂, CH₂F, —CHF—CH₃, —CF₂—CH₃, methoxy, difluoromethoxy, trifluoromethoxy, ethoxy, methlythio, methylsulfinyl and methylsulfonyl;

R^{50'}, R^{51'}, R^{52'}, R^{53'}, R^{54'}, R^{55'} and R^{56'} are selected, independently of each other, from the group consisting of hydrogen, fluorine, methyl, CH₂F and CF₃;

R⁵⁷⁷, R⁵⁸, R⁵⁹ and R⁶⁰ are selected, independently of each other, from the group consisting of hydrogen, halogen, cvano, C₂-C₄ alkyl, CHF₂ and CF₃:

cyano, C₁-C₄ alkyl, CHF₂ and CF₃; provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not hydrogen;

R⁶¹ and R⁶² are selected independently of each other from the group consisting of hydrogen, fluorine, methyl, ethyl, CHF2 and CF3;

 $R^{62'}$, $R^{63'}$, $R^{64'}$, $R^{65'}$, $R^{66'}$, $R^{67'}$ and $R^{68'}$ are selected independently of each other from the group consisting of 5 hydrogen, fluoro, methyl, ethyl, methoxy, difluoromethoxy, trifluoromethoxy, CHF₂ and CF₃;

 $R^{69'}$ is selected from hydrogen and C_1 - C_4 alkyl; n is 0 or 1;

p and q are independently selected from 0 and 1;

r and s are 0 and t is 1 or 0. 12. A fungicidal composition according to claim 3, wherein component A) is a compound of formula (I) wherein G^1 is a saturated C_{10} fused bicyclic ring system;

 G^2 is a C_5 - C_6 cycloalkenyl group;

G³ is phenyl;

G⁴ is cyclohexyl or cyclopentyl;

G⁵ is C₆ cycloalkyl, which is optionally substituted by one or more groups independently selected from ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert- 20 butyl, n-pentyl, —CH(CH₃)—CH₂—CH₂—CH₃, —CH—CH(CH₃)—CH₂—CH₃, —CH₂—CH₂—CH (CH_3) — CH_3 , — CH_2 — CH_2 — $CH(CH_3)_2$ and —CH(CH₃)—CH(CH₃)₂;

G⁶ is phenyl, which must be substituted by at least one 25 fluorine and is optionally further substituted by one or more methyl, bromine, iodine or chlorine;

G⁷ is methylene;

G¹⁰ is phenyl, which is optionally substituted by one or more groups independently selected from halogen, CN, 30 methyl, ethyl, n-propyl, iso-propyl, ethenyl, methoxy, ethoxy, iso-propyloxy, phenyl, CHF₂, CF₃, CHF—CH₃ and OCHF2;

G¹¹ is methylene substituted by at least one group independently selected from methyl, CF₃ and ethyl;

 G^{13} is a C_8 - C_{11} spirobicyclic system containing 0, 1 or 2 O or N atoms, wherein there are no adjacent O atoms, which is optionally substituted by one or more groups independently selected from halogen, C1-C4 alkyl, C_1 - C_4 alkoxy and =O;

G¹⁷ is a five- to six-membered monocyclic heteroaromatic ring system which can contain 1 or 2 members selected from the group consisting of N, O and S, it not being possible for each ring system to contain -O-O-, S—S— and —O—S— fragments, and it being pos- 45 sible for the five- to six-membered ring system to be itself mono- or polysubstituted by groups selected from the group consisting of halogen, CN, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, phenyl or fluorophenyl;

 $R^{1'}$, $R^{2'}$, $R^{3'}$, $R^{4'}$ and $R^{5'}$ are each hydrogen; $R^{11'}$, $R^{12'}$, $R^{13'}$ and $R^{14'}$ are selected, independently of each other, from the group consisting of hydrogen, halogen,

cyano, C_1 - C_4 alkyl and C_1 - C_4 alkoxy; $R^{15'}$, $R^{16'}$, $R^{17'}$, $R^{18'}$, $R^{19'}$, $R^{20'}$, $R^{21'}$, $R^{22'}$, $R^{23'}$, $R^{24'}$ and $R^{25'}$ 55 are each independently selected from hydrogen, methyl, ethyl and isopropyl;

 $R^{26'}$ is N—OH, N—O— C_1 - C_4 alkyl, N—O— C_2 - C_4 alkenyl, N—O—C₂-C₄ alkynyl, N—O—C₁-C₄ haloalkyl, O-C₂-C₄ haloalkenyl, N-O-benzyl, N-O-phe- 60

nyl, N—O-halophenyl, O and $C(R^{36'})$; $R^{27'}, R^{28'}, R^{29'}, R^{30'}, R^{31'}, R^{32'}, R^{33'}, R^{34'}$ and R^{35} are each hydrogen or methyl;

or R27' and R28' together with the two carbon atoms to which they are attached form a double bond;

each R^{36'} is independently selected from hydrogen, halogen and C₁-C₄ alkyl;

 $R^{37'}$, $R^{38'}$, $R^{39'}$, $R^{40'}$, $R^{41'}$, $R^{42'}$, $R^{43'}$ and $R^{44'}$ are hydrogen; R^{45'}, R^{46'}, R^{47'}, R^{48'} and R^{49'} are independently selected from the group consisting of hydrogen, fluorine, chlorine, methyl, CF₃, CHF₂, CH₂F, methoxy, difluoromethoxy and trifluoromethoxy;

R^{53'}, R^{51'}, R^{52'}, R^{53'}, R^{54'}, R^{55'} and R^{56'} are each hydrogen; R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ are selected, independently of each other, from the group consisting of hydrogen and halo-

provided that at least one of R⁵⁷, R⁵⁸, R⁵⁹ and R⁶⁰ is not

R⁶¹, R⁶², R⁶³, R⁶⁴, R⁶⁵, R⁶⁶, R⁶⁷ and R⁶⁸ are hydrogen; R⁶⁹ is hydrogen;

n is 0 or 1;

p and q are independently selected from 0 and 1; r, s and t are each 0.

13. A compound according to formula (IV)

$$\begin{array}{c} R_{100} \\ \\ R_{3} \end{array} \begin{array}{c} N \\ \\ R_{7} \end{array} \begin{array}{c} R_{4} \\ \\ R_{6} \\ \\ R_{2} \end{array}$$

wherein R_{100} is halogen, SH, C_1 - C_4 alkylthio, C_1 - C_4 alkysulfinyl, C_1 - C_4 alkylsulfonyl;

 R_1 and R_2 are each independently selected from hydrogen, C₁-C₄ alkyl, C₃-C₄ alkenyl, C₃-C₄ alkynyl, (R₁₀)carbonyl and (R₁₀)oxycarbonyl;

or R₁ and R₂ together with the nitrogen atom to which the are attached form a 5- or 6 membered cyclic group which may be saturated or unsaturated and may contain a further heteroatom selected from S or O;

R³ represents hydrogen, halogen, cyano, nitro, mercapto, hydroxy, — $C(=S)NH_2$, — SF_5 , C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 haloalkenyl, C_2 - C_6 alkynyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_3 - C_6 cycloalkyl amino, C_1 - C_2 alkylamino, di(C₁-C₆alkyl)amino, a 5-membered heterocycle containing 1-4 nitrogen atoms, piperidino, morpholino, thiomorpholino, formyl, hydroxycarbonyl, C2-C7 alkoxycarbonyl, C2-C7 haloalkoxycarbonyl, C4-C7 alkenyloxycarbonyl, C₄-C₇ haloalkenyloxycarbonyl, C_2 - C_7 alkylcarbonyl, C_2 - C_7 haloalkylcarbonyl, C_1 - C_6 alkylthio, C₁-C₆alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl, C_1 - C_6 hydroxyalkyl, phenyl or benzyl wherein the phenyl and benzyl are optionally substituted by one or more groups independently selected from the group consisting of halogen, cyano, hydroxy, mercapto, amino, C₁-C₆ alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C₁-C₆alkylthio, C₁-C₆alkylsulfinyl C_1 - C_6 alkylsulfonyl;

R₄ represents hydrogen, halogen, cyano, amino, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₃-C₆ cycloalkyl, C₂-C₄ alkenyl, C_2 - C_4 alkynyl, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy, C_1 - C_4 alkylthio, C₁-C₄ alkylsulfinyl, C₁-C₄ alkylsulfonyl, methylamino or dimethylamino;

R₆ is selected from hydrogen and SH; and R_7 is hydrogen, halogen or C_1 - C_4 alkyl.

14. A method of controlling phytopathogenic diseases on useful plants or on propagation material thereof, which com-

prises applying to the useful plants, the locus thereof or propagation material thereof a combination of components A) and B) in a synergistically effective amount according to claim 1 together with an inert carrier, and optionally an adjuvant

15. A fungicidal composition, comprising a combination of components A) and B) according to claim 1 together with an inert carrier, and optionally an adjuvant, wherein the weight ratio of A) to B) is between 100:1 and 1:6000.

16. A method of protecting natural substances of plant 10 origin, which have been taken from their natural life cycle, and/or their processed forms, which comprises applying to said natural substances of plant and/or animal origin or their processed forms a combination of components A) and B) according to claim 1 in a synergistically effective amount. 15

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